

ENVIRONMENTAL PREFERENCES FOR LEISURE  
IN SHOPPING MALLS

A THESIS  
SUBMITTED TO THE DEPARTMENT OF  
INTERIOR ARCHITECTURE AND ENVIRONMENTAL DESIGN  
AND THE INSTITUTE OF ECONOMICS AND SOCIAL SCIENCES  
OF SILKENT UNIVERSITY  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS  
FOR THE DEGREE OF  
MASTER OF FINE ARTS

By  
Ece Çalgüler  
June, 1999

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**Ece Çalgüner**

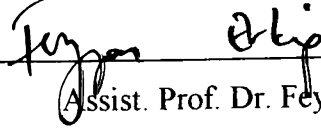
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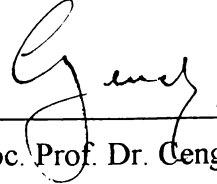
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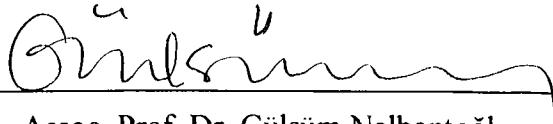
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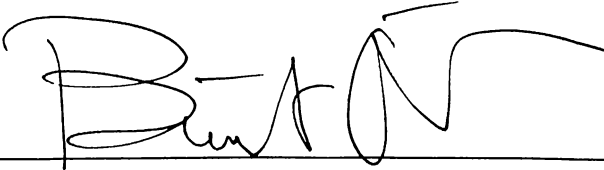
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Prof. Dr. Bülent Özgüç, Director of the Institute of Fine Arts.



## **ABSTRACT**

# **ENVIRONMENTAL PREFERENCES FOR LEISURE IN SHOPPING MALLS**

**Ece algüner**

M.F.A. in Interior Architecture and Environmental Design

Supervisor: Assist. Prof. Dr. Feyzan Erkip

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In this study, the concept of leisure is studied examining its commercialization through history, discussing its contemporary meanings and place in public life. Shopping mall is presented as a synthesis of leisure and commerce, representing the nostalgic street - as the center of public life. While exploring the supportive role of leisure in the shopping mall, mall environment is analyzed as one of the important factors that support leisure in shopping malls. With the assumption that leisure activities can influence aesthetic experience, concern towards environment, and hence environmental preferences, the concept of environmental preferences is discussed and the choice of shopping mall as a leisure site is examined with respect to environmental preferences of the users. In this context, a field research has been carried out to examine the significance of leisure in the shopping mall, the influence of environmental preferences on the choice of a shopping mall as a leisure site, and to analyze the affect of interior architecture education on aesthetic experience and preferences in a mall environmental.

**Keywords:** Leisure, shopping mall, environmental preferences.

## ÖZET

### ALİŞVERİŞ MERKEZLERİNDE BOŞ VAKİT DEĞERLENDİRMESİ İÇİN MEKANSAL TERCİHLER

**Ece Çalgüner**

İç Mimarlık ve Çevre Tasarımı Bölümü, Yüksek Lisans

Danışman: Yrd. Doç. Dr. Feyzan Erkip

Haziran, 1999

Bu çalışmada, boş vakitlerin değerlendirilmesi kavramı çağdaş anlamları, zaman içerisindeki ticari dönüşümü ve kamusal yaşamdaki yeri tartışılarak incelenmiştir; günümüzde kamusal yaşamın merkezi olan nostaljik sokak kavramını temsil eden alışveriş merkezleri de, boş vakit aktiviteleri ve ticareti birleştiren kamu mekanları olarak ele alınmıştır. Boş vakit aktivitelerinin alışveriş merkezi içindeki destekleyici rolü incelenirken, alışveriş merkezi ortamı da boş vakitlerin değerlendirilmesini destekleyen bir faktör olarak analiz edilmiştir. Boş vakit aktivitelerinin estetik deneyimi, mekan duyarlılığı, ve mekansal tercihleri etkilediği varsayımıyla, mekansal tercihler kavramı araştırılmış, alışveriş merkezlerinin boş vakitlerin değerlendirilmesi için seçimi kullanıcıların mekansal tercihlerine bağlı olarak incelenmiştir. Buna bağlı olarak, boş vakit aktivitelerinin alışveriş merkezlerindeki önemini, mekansal tercihlerin alışveriş merkezlerinin boş vakit değerlendirilmesi için seçimine etkisini, ve iç mimarlık eğitiminin estetik deneyim ve mekansal tercihler üzerine etkisini inceleyen bir çalışma yapılmıştır.

**Anahtar Kelimeler:** Boş vakit aktiviteleri, alışveriş merkezi, mekansal tercihler.

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## **1. INTRODUCTION**

The phenomenon of leisure evoked an immense variety of interpretations about its origin, meaning, and place in the society. The term leisure includes ‘attitude’ or ‘feeling’ of freedom and release from constraint; ‘activity’ that is freely chosen and separate from specific responsibilities, like work tasks, commitments, etc.; and non-obligated or discretionary ‘time’, left over after the necessary personal and social commitments (Stokowski, 1994). Besides, leisure is generally approached as a function of social groups, as leisure interests cause people to join a group and share activities.

Today’s approaches towards leisure, include experiences that may occur in all aspects of life, including work and other obligations, as daily commitments like shopping or activities arranged as work may end up as a leisure experience, by the change of the individual’s perception of why she/he is performing the activity from external to internal motivation (Murphy, 1987).

Throughout this study, leisure refers to experiences and activities that are freely chosen and intrinsically motivating, to which the individual turns at will for creativity, learning, exploration, relaxation, entertainment, diversion, social interaction or escape from physical and mental stress.

Leisure has an important role in public life by its learning, healing, restorative, and socializing effects. Any organization that operates in a leisure mode provides interpretive services like promoting environmental conservation, carrying resource-

management message, cultivating tourism, encouraging social interaction, functioning as a public-relations tool, providing an information service and serving as a diversion (Mullins, 1987). As leisure interests cause a person to join a group sharing similar interests, it also supports public life (Murphy, 1987) - which constitutes a group action, holding people together to symbolize power; and a school for sharing and social learning of all kinds, including work, commerce, and pleasure (Carr et. al., 1992).

The term public space comprises physical places that affect public life; are used for the common good, and for affecting it; are accessible to and shared by a diversity of people and open to general observation; form an arena for a social life that can be apart from friends and family members; deliver services to the public; include the public's interest; and protect people's health, safety, and welfare, including people of limited and diverse capabilities. (Brill, 1989) The needs of people who go for group or individual activities to public spaces includes comfort, relaxation, passive engagement with the environment, active engagement with the individuals and the environment and discovery (Carr et. al., 1992).

Throughout history, public life was based in the common ground of the street and the square, and later in the park. Parallel to the changes in economical and social life as a result of urbanization, industrialization, and capitalism there became significant changes both in public life and public spaces. While the streets and squares are losing their meaning as social spaces, public life shifted to the interior spaces that are settled between them.

Today, the nostalgia for the street and square as the center of public life continues as a design ideology. The shopping mall is conceived as the modern example of the nostalgic street as the public space (Brill, 1989), with its commercial, leisure, and social opportunities in a building's interior. Parallel to the shift from outdoor to indoor spaces as the stage of public life, leisure as an inseparable part of public life, by its various qualities, transmitted in these indoor public spaces, transforming them to public leisure complexes.

The shopping mall, by its new spatial form, as a synthesis of leisure and commerce gained new meanings besides economic exchange as a gathering space for social exchange and as a site of communication and interaction; which transformed it into a leisure complex. (Shields, 1992). While leisure supports commerce by increasing the time spent in the mall, impulse purchases, number of users and frequency of use; it forms the basis for social interaction, exploration, escape, entertainment and relaxation.

Symbolizing the nostalgic street as the center of public life, synthesizing leisure and commerce, satisfying the new needs and demands of the society and representing today's leisure and lifestyle, being one of the most popular leisure sites throughout the world and in Turkey; the shopping mall will be analyzed as the dominant example of leisure complex throughout the thesis.

There are several factors that affect the choice of shopping centers as a leisure site, including personal and social factors like location, proximity (Bacon, 1991), accessibility, number and variety of stores and brands carried, user group, mall image



(Feinberg and Meoli, 1991), familiarity, and safety; and spatial factors that constitute the characteristics distinguishing each and forming the basis of competition between them through the globalizing market.

While leisure supports shopping mall, by its explorative, healing, restorative, and socializing qualities, increasing time spent, number and frequency of users; mall environment will be analyzed as one of the important factors that support leisure in shopping mall. The physical variables of the mall environment as they contribute to an overall environmental impression, will be analyzed as a whole - as the mall environment, to test the assumption, leisure activities can increase aesthetic experience, concern towards environment and hence environmental preferences. As a result, the choice of shopping mall as a leisure site will be examined with respect to the environmental preferences of the users throughout the field research.

Following the above discussion, the study aims to examine the significance of leisure in the shopping mall and the influence of environmental preferences on the choice of shopping mall as a leisure site. Depending on these criteria, the thesis consists of four chapters:

In the introduction, leisure is discussed in relation to its place in public spaces and brief information about commercial spaces and environmental preferences is given considering the effect of mall environment on the choice of shopping mall as a leisure site.

In the second chapter, leisure and the transformations in commercial spaces with the contribution of leisure are studied. The concept of leisure is examined, by viewing its commercialization with the effects of industrial revolution, modernism, postmodernism and capitalism, and by discussing the various approaches and definitions. Then, brief information about the significance of leisure in public life and spaces is given and the transformation of commercial spaces into public leisure complexes is examined considering the effects of the changes in public spaces. By its new formation, the shopping mall is presented as a public leisure complex, with its evolution and leisure associations underlined.

The third chapter includes the discussion of environmental preferences, examining its roots in environmental aesthetics. After examining various approaches towards environmental preferences, aesthetic experience is discussed as the basis for environmental preferences. Two aspects of aesthetic experience are utilized as formal and symbolic aesthetics. Then the environmental variables affecting environmental preference are examined with their formal and symbolic effects.

The fourth chapter consists of the discussion of the previous studies on environmental preferences and the design of a field research in a shopping mall in Ankara. After giving brief information on site selection, sampling, and methodology, the results are evaluated and discussed.

The last chapter – conclusion, summarizes the discussions on environmental preferences for leisure in mall environments and the implications for the design of mall environments.

## **2 LEISURE AND THE SHOPPING MALL**

This chapter analyzes the phenomenon of leisure examining its commercialization throughout history, discussing its recent meanings and place in public life and spaces.

The transformation of commercial spaces into public leisure complexes is analyzed following the commercialization of leisure, changes in public life and transformations in public spaces. The shopping mall synthesizing leisure and commerce is examined as the center of today's public life.

### **2.1 THE CONCEPT OF LEISURE**

The English word 'leisure' appears to be derived from the Latin *licere*, 'to be permitted' or 'to be free'. The basis of the word 'leisure' seems to be freedom - of time, attitude, and choice (Jensen, 1977). The word is defined in terms of 'freedom from constraint', 'opportunity to choose', 'time left over after work', or as 'free time after obligatory social duties have been met' (Torkildsen, 1992).

The concept of leisure permits different viewpoints and there have been many attempts to define leisure. Leisure is commonly thought as the opposite of work, but someone's work can be another's leisure, and several activities combine both leisure and work characteristics. Freedom from obligation is often regarded as a key attraction of leisure, but many non-work activities, like domestic, social, voluntary and community activities involve considerable obligation. (Torkildsen, 1992). Most follow the practice of common sense and associate it with 'freedom', 'choice', and 'life-satisfaction'. This approach also does not seem appropriate, as freedom and choice obviously depend upon

place, time, and above all, the actions of others. Rojek (1995) defines leisure as a place on the map of the human world, where we are constantly trying to land, but which perpetually evades our reach.

Leisure is a complex concept with various connotations depending on people, place and time (Russell, 1996). And obviously the leisure experience we have today, carries the evidences of history, all the ancient societies' philosophies, and approaches. While the ancient Greeks gave us a spiritual interpretation of leisure; ancient Rome originated today's mass recreation and leisure as spectacle; and the middle ages has added that touch of guilt we sometimes feel when we choose our favorite pastime over work (Russell, 1996).

### **2.1.1 Various Approaches and Definitions**

The phenomenon of leisure has evoked an immense variety of interpretations among researchers about its origin, meaning, benefits, problems and place in society. While leisure takes different forms and meanings appropriate to specific cultural and social contexts, it also retains a measurable generalizability. Traditional definitions of leisure can be clustered around three main topics: leisure as 'attitude'; leisure as 'activity'; and leisure as 'time' (Stokowski, 1994). The classical idea of leisure as 'attitude' or 'feeling' of freedom and release from constraint reflects an emphasis on internal, personal realities in which leisure is described as a product of subjective emotional and psychological processes.

The second approach is the definition of leisure as an ‘activity’ chosen primarily for its own sake. These include activities that are freely chosen and separate from the ones that obligate people to specific responsibilities, like work tasks, required family commitments, etc. In contrast to leisure as ‘attitude’, leisure as ‘activity’ is a more objective approach that can be counted, quantified, and compared. The model of leisure as activity can be illustrated by the development of leisure and recreation movements in the modern societies. These movements affected the creation and design of open and closed public spaces to meet the social needs of people, and relieve their urban and work related stresses.

Finally the last approach that defines leisure as ‘time’ refers to non-obligated or discretionary time left over after the necessary commitments of work, family and personal maintenance. Time is conceived as discretionary to the extent that people can freely choose their activities. Like leisure as ‘activity’, leisure as ‘time’ is also quantifiable and objective. Stokowski (1994) emphasizes the industrial revolution as reinforcement of separation of leisure from work, where it is assumed to be time and space away from work.

Parallel to the changes in societies, contradictions in the distinction of work and leisure and the definitions of ‘free time’, ‘choice’, and self-satisfaction; various leisure theories and approaches are developed in the 20th century, while the traditional ones continue their existence with some debates. Russell (1996), like Stokowski (1994), is one of the researchers who defines leisure as ‘free time’, recreational activity’, and ‘attitude’. Whereas Murphy (1987) approaches leisure with models of human behavior. He defines

leisure by three approaches: objective, subjective and holistic, with these human behavior models constituting the theoretical background for the definition of leisure.

According to Murphy (1987), the objective conceptualization of leisure is mostly used by sociologists parallel to the human behavior models structural-functional, seeing leisure as residual instead of an integral part of human life and stimulus-reduction, seeing leisure as an open stimulus / arousal-seeking model of human behavior. He examines the objective approach towards leisure in five groups:

- 1) leisure as discretionary or residual time,
- 2) leisure as activity,
- 3) leisure as a symbol of social class,
- 4) leisure as a social instrument, and
- 5) leisure as a function of social groups.

Besides the first two definitions of leisure as time and activity that are mentioned before, the third one is the definition of leisure as a symbol of social class, which is first articulated by Veblen (1953) in 1899. Leisure according to that approach is viewed in relation to the wealthy or elite social class who used it to maintain its position or standing in society. Then, he defines leisure as a social instrument, as a means of meeting the needs of the poor, elderly, and disabled, along with various other groups, through the efforts of human service agencies. The final definition of leisure according to the objective approach is as a function of social groups. Murphy (1987) displays participation in social groups as the most common individual leisure experience as leisure interests cause people to join a group and share activities.

According to the subjective conceptual definitions, leisure is seen as a state of mind or an experiential perspective, focusing on personal, subjective factors such as perceived freedom and intrinsic motivation as the basis for leisure experience. Murphy (1987) examines leisure through a subjective concept in three groups, according to classical, psychological and social-psychological views. Neulinger (1987) works on the psychology of leisure and identifies leisure as a state of mind characterized by perceived freedom and intrinsic motivation. He also identifies motivation, as a significant determinant of the quality of the leisure experience, indicating that the proportion of intrinsic and/or extrinsic motivation present for the activity engaged in will affect the nature of the leisure experience. Iso-Ahola (1987) explains the social-psychological view of leisure, as studies determining how people form behaviors, emotions and attitudes towards leisure and how their leisure attitudes are changed by the influence of other individuals, social groups and structures.

While the objective and subjective definitions of leisure summarize various views and approaches towards leisure through the history and the 20th century, the holistic concept, as a combination of subjective and objective concepts, - that Murphy examines as the third conceptual definition - reflects contemporary approaches towards leisure, seeing the experience in a wide variety of activities including work, play, education, and religion. Two prominent interpretations of the holistic perspective of leisure are Csikszentmihalyi's (1975) and Tinsley and Tinsley's (1982). According to Csikszentmihalyi, leisure is a state, which is achieved whenever a person is in optimal interaction with the environment. According to Tinsley and Tinsley (1982), the leisure



state or experience resides in the individual, not in the activity and can change from individual to individual.

Despite the traditional approach to define leisure as the opposite of work, the holistic approach towards leisure defines it as an experience that may occur in all aspects of life, including work and other obligations. A round of golf or set of tennis arranged for business reasons or shopping for daily necessities may end up as a leisure experience, as the individual's perception of why she/he is performing the activity changes from external to internal motivation. Emerging holistic models based on research into the human condition suggest that the needs of the person determine what will be intrinsically motivating and therefore what constitute the leisure experience, not the structure of the environment or stimulus induced by others.

### **2.1.2 The Transformation towards Commercial Leisure**

As a result of the industrial revolution, there have been a lot of changes in people's lives. Due to the migration to cities, there was a rise in the urban population, overcrowding, poor housing, poverty, crime and an increase in the working hours, which all worked against leisure. People moved to cramped conditions with less space to have leisure and play, and less time to have leisure. Besides, there were no planned leisure and recreation areas. A reform movement began dealing with the concept of recreation, with the philosophy that recreation served socially useful ends - from the mid-1800s into 1900s, a theme to continue throughout the 20th century. According to Torkildsen (1992), today industrial and company recreation is rationalized on the grounds of lower absenteeism, lower employee turnover, higher morale and higher productivity. It was in response to

these appealing social conditions that the organized recreation movement began. At the turn of the century, an interest in leisure as it relates to industrial society was awakened. At this time also the 'leisure class' and its 'conspicuous consumption', as Veblen (1953) described, were re-emerging. With capitalism, urbanization and industrialization, after the division of labor and class, status became symbolized by purchasing power and accumulation of wealth. By the influence of social pioneers governments started to act and baths, parks and open spaces were made available to the public. But according to Torkildsen (1992), leisure was never the right of the masses, until it was defined as a separate part of life from the excessively long working hours. The establishment of Saturday as half-day was a significant turning point towards an acceptance of leisure for the mass of the people.

Cross (1987) and Stokowski (1994) also identify industrial revolution as the most significant influence on the distribution of leisure in advanced societies and link the emergence of modern patterns of leisure with the industrialization of Western Europe and America in the nineteenth century resulting in organization of work hours, the weekend, the annual vacation and retirement. In preindustrial society, leisure time was not so scarce but it was irregular. Despite the common association of leisure with religion, popular activities were often boisterous and usually sex-segregated. Cross (1987) displays industrialization as the event that disrupted traditional leisure patterns in many ways, like the reduction of the number of religious holidays by employers and governments, the establishment of a regular workday, the effort to eliminate the disorderliness of popular leisure and finally urbanization. He mentions the economic transformation that created income and technology, which has made many contemporary

leisure activities possible and indirectly contributed to new, more individualistic, democratic and commercial leisure. Russell (1996) emphasizes the importance of urbanization, technology and industrialization on leisure behavior, indicating that leisure tends to be more commercial in technologically developed cultures, while it is used as a tool for development in developing countries. As a result, the 20th century observed the growth of recreation, need for play as approaches of learning for the young, and most importantly, the need for leisure for the sake of enjoyment rather than social welfare. After public parks, pubs, music halls were provided throughout the century; cinema and spectator sports, and television has been provided as leisure attractions and started to penetrate our lives both in private and public spaces.

While specific cultures attributed specific meanings to leisure, some social and economic systems, trends and movements also played important roles to understand today's leisure meanings and definitions. Rojek (1995) focuses on three social formations, modernism, postmodernity, and capitalism to analyze the contemporary meaning of leisure. While capitalism and modernism tend to associate leisure with real experience, release, escape and freedom; postmodernism tend to explore the decentralization of these associations from meanings of leisure.

Rojek (1985) explains the modernist belief that scientific analysis could inform the real conditions of social existence and that society could be made to conform to a socialist blueprint of rational justice. According to Rojek, accounts of leisure, which take modernity as their essential context, emphasize two contrasting forces. On one hand, they emphasize order and control. Modernity is presented as a social order with rational

principles that can be imposed on daily life. The time and space for work and leisure can be determined by mathematical accuracy for the well being of the individual and society. Leisure activity is presented as fulfilling and enriching and is essentially ordered. On the other hand, the second set of forces is disorder and fragmentation. The restlessness and uncertainty of the experience is clearly emphasized. Leisure activity is presented as a series of short-lived relationships, which can produce boredom, disappointment and nervousness, as well as excitement, stimulation and pleasure and it is explored as a way to fill the consumer's empty time.

Another important social formation influencing leisure is postmodernity. Rojek (1995) states that leisure in postmodernity stress the decomposition of hierarchical distinctions between high and low culture, irresistible eclecticism and the mixing of codes, the depthlessness and transparency of activities, and the collapse of the distinction between author and consumer. The multiple uses and relative cheapness of communication systems are held to expand leisure options, which affected the use of domestic interiors as a leisure site. By the development of telematic and communication technology, TV by its various opportunities including cable and satellite channels; and computer giving access to games, sports, and libraries, allowing strangers to interact with each other, browse in the virtual leisure sites became important leisure opportunities and started to take their place next to the endless public and private leisure activities.

Among the three social formations, the one that influenced contemporary leisure meanings most is probably capitalism by its effects on commercialization. Rojek (1995) examines the commodification and homogenization of leisure experience under

capitalism, as a global system of production, enforcing the commodity market as the universal and necessary state of social existence, while privileging individual experience over collective experience and tending to reduce human relationships to financial values. While commodification in his expression refers to the process, by which labor is purchased as a source by the capitalist and turned into a factor of production; it also refers to the process by which goods, services and experiences are packaged and sold to the customer.

The capitalist penetration and reflection of leisure in the last hundred years – the emergence of leisure as a purchasable commodity or service – has had significant implications for the daily lives of people. Activities once organized on a local, neighborhood, or voluntary basis have been transformed by a process characterized by capital collection and rationalization, by the introduction of new technologies, and by the elaboration of ideologies justifying commodified leisure forms. One of the most significant aspects of this process has involved the creation and socialization of consumers. In their effort to expand profitmaking opportunities in leisure, entrepreneurs have looked toward the development and expansion of the consumer market for amusement and entertainment. As people have become more dependent on purchased goods and services for fun, so too has leisure become a source of profit for corporate enterprises and an integral part of the economy (Butsch, 1990).

Although some leisure businesses mark households, changing the practice of leisure within the domestic sphere, the dominant direction of commercialization involved the use of public, nondomestic space. Parallel to the commercialization of leisure activities,

sports were also involved in a shift from playing and watching, to playing and spectating. While professional competitors are being paid to play, spectators started to pay to watch (Rojek, 1995). This tendency includes also the satellite broadcasting and various tourist destinations like theme parks, hotel complexes, etc.

### **2.1.3 The Significance of Leisure in Public Life and Spaces**

The term public space denotes physical places that affect public life; which are used for the common good, and for affecting it; are accessible to and shared by a diversity of people and open to general observation; form an arena for a social life that can be apart from friends and family members; deliver services to the public; attract the public's interest; and protect people's health, safety, and welfare, including people of limited and diverse capabilities (Brill, 1989).

The first objective of public space is to support public life. Public life is distinct from private life and performs important functions. It is a forum, where individual's private pursuit of happiness gets constantly balanced by the rules of fairness and reason directed to the common good; it is a group action where people come together to be empowered and symbolize power; it is a school for sharing and social learning of all kinds, including work, commerce, and pleasure, where the range of permissible behaviors are explored; and it is where the stranger is met on common ground.

Brill (1989) identifies the three strands of public life as the citizen of affairs; the citizen of commerce and pleasure; and the familiar citizen. He displays civility as the basis for the citizen of affairs. Civility protects people from one another and yet allows them to

enjoy one another's company and makes it possible for people to act together as citizens in the political and social affairs of the city. There is a shift in public behavior today from active participation towards observation, passive participation and spectating; parallel to the quest for personality and loss of civility that help people learn to act impersonally. But, despite the decrease in civility, we are still citizens of affairs, as we have not lost the power to come together and act together.

The second strand of public life for Brill (1989) is the citizen of commerce and pleasure, which remains very vigorous today by consumption as spectacle. He mentions marketplaces in history as living theatres, to satisfy social relationships. In the commerce and pleasure strand of public life, the scene mixes with spectacle, entertainment, eating, drinking, and amorous pleasure, with marketing commerce, and work, with passionate religious and political activity, with exchanging news and information and being, sharing with strangers like a life as theatre. There is a transformation today in city streets from being conduits for movement to being commerce and pleasure sites; and a shift of commerce and pleasure towards indoor public places, new indoor streets - shopping malls. The last strand of an ideal public life according to Brill (1989) is the familiar citizen. While he believes in the continuation of the preceding two strands, he discusses the loss of a familiar, local, social life which is formed by small-scale neighborhood life.

Carr et. al. (1992) define public spaces as publicly accessible spaces where people go for group or individual activities and explain the needs of public spaces as comfort, relaxation, passive engagement with the environment, active engagement with the

individuals and the environment and discovery. Besides, Murphy (1987) represents three major stimuli encouraging involvement in social groups, which is the basis of public life, indicating that:

- 1) leisure interests cause a person to join a group sharing similar interests,
- 2) leisure behavior is central to a lifestyle shared by members of a group, and
- 3) group membership is based on factors such as family, friends, and demographic variables like age, gender, etc.

Leisure has an important place in public life by its various qualities like happiness, pleasure, freedom, intrinsic reward, play, humor, ritual, solitude, and spirituality (Russell, 1996). Some of the human needs that could be satisfied by leisure are enjoyment, physical fitness and rest, escape from physical stresses, learning and exploration, socialization and meeting new people, independence, contemplation, social security, stimulation, skill development, social recognition and self-confidence building, and nostalgia.

Perdue and Thomason (1987) base the philosophy of leisure on the concept of need and mention the importance of leisure and recreation in public life as people need leisure and recreation for personal and social development. Supporting the view of Perdue and Thomason, Winniffrith and Barrett (1993) and Stokowski (1994) define the importance of leisure in society by forming patterned interactions and relationships which engage people and carry meanings in social structures.



Mullins (1987) also indicates the important role of leisure in public life. He mentions that any organization that operates in a leisure mode in a public space provides interpretive services like promoting environmental conservation, carrying resource-management message, cultivating tourism, encouraging social interaction, functioning as a public-relations tool, providing an information service and serving as a diversion. Wherever and however public life occurs, it maintains its primary goals of leisure as spectacle, entertainment, and pleasure; marketing commerce and work; shaping public concepts of governance religion and social structure; exchanging information; and a great deal of learning from face-to-face encounters with or observation of strangers.

Throughout history, public life was based on the common ground of the street and the square, and later on the park. But, by the 1600s, public life starts to be transformed and the street and the square began to loosen their hold on some aspects of public life. By the early 1700s, the largest European cities were all growing from shift in-migration, developing networks of sociability, money, and power and becoming cities of strangers. As a result, walking on the streets, seeing and being seen by strangers, became a major social activity. By the time when the streets could not comfortably support this activity, by the fast traffic, confusion, and often disrepair, large urban parks were built for these promenades.

Parallel to the changes in economic and social life as a result of urbanization, technology and industrialization, there became significant changes both in public life and public spaces. Firstly, new forms of public life that is not place-based emerged by the developments in broadcasting and telecommunications. Secondly, there occurred a shift

from outdoor to indoor spaces as a stage for public life and activities. Brill (1989) indicates that zoning-by-use segmented the city by function and building type, reducing localized diversity and disintegrating community life. While the streets and squares have been losing their meaning as social spaces, public life shifted to the interior spaces that were settled between them.

Parallel to the shift from outdoor to indoor spaces as the stage of public life and the changing needs, demands, economy and structure of the society, leisure as an inseparable part of public life started to transmit in indoor public spaces by its healing explorative, restorative, and socializing qualities. Leisure started to take supportive roles like attracting and keeping users happy in public spaces, whose main activity is very distinct from leisure, including educational, religious, healing, and various other spaces. Besides its supportive roles on the above-mentioned public spaces, it transformed some public spaces, including cultural and commercial ones, into leisure complexes depending on the variety of experiences offered. Leisure in public spaces started to provide interpretive services like, cultivating tourism, encouraging social interaction, and functioning as a public-relations tool besides supporting the main function (Mullins, 1987).

## **2.2 THE TRANSFORMATION OF COMMERCIAL SPACES INTO PUBLIC LEISURE COMPLEXES**

By industrialization, new technologies and economic transformation creating the income and technology have made many contemporary leisure activities possible and contributed to a new, choice-free and commercial leisure (Cross, 1987). Shields (1992)

mentions that after the decline of modernist segmentation, by postmodernism, as a new regime of value, leisure synthesized into commercial spaces, and transformed them into leisure complexes. Reekie (1992) also mentions the separation of commerce from work and connection to leisure as a significant shift in the commercial spaces where Davey (1993) indicates that new complexes, which transformed the meaning of leisure in urban life are formed, with the addition of leisure activities to commercial spaces. Leisure, as a supportive activity, formed the stage for social interaction in commercial spaces by drawing, motivating and gathering individuals. (Shields, 1992).

Leisure and recreational spaces like restaurants, cafes, sports facilities, conference and exhibition halls and various services, indicated new meanings beside economic exchange as a gathering space for social exchange (Shields, 1992). Additionally, Bloch et. al. (1994) mention that these complexes became a refuge space to escape from the routines of everyday life, a spectacle to be consumed, a space to pass time, and browse without paying. Clammer (1992) points out the new meaning of the site as a space to see, be seen and see what's new. Similarly, Williamson (1992) defines the new complex as a space full of various kind of experience. These transformed spaces include shopping malls, hotel complexes, marketplaces, sports complexes, cinemas, theaters, and opera houses.

Boniface (1981), Rutes and Penner (1985), Goldberger (1989), and Croot (1991) mention the transformation of hotels into leisure complexes, to satisfy the changing needs and demands of the society. Rutes and Penner (1995) explain how hotel complexes opened to local users and became centers of social relationship. As they

mention that, by the addition of new facilities like restaurants, bars, shopping centers, sports facilities, ball rooms, conference and exhibition halls, hotel complexes started to address both international and local clients being the entertainment centers of the cities. Hotel complexes become gathering places for local users, where social interaction takes place (Goldberger, 1989), and their lobbies become refuge areas with ideal climate, exciting interior; by the use of water, tents, artworks and kinetics, to experience the almost abstract leisurely world inside (Croot, 1991). Goldberger (1989) indicates that, the hotel complex became a place for everyone by its new functions. If it is not for everyone to spend a night in, then it is for everyone to visit, to fantasy about, and to celebrate in.

A different phase of transformation can be seen in sports complexes. Different sport facilities like athletic stadiums, swimming pools, tennis courts, etc. which are previously held apart in different sites, started to gather around a complex, with the addition of leisure and commercial facilities like restaurants, cafes, and stores. While Phillips (1993) explores the place of sport complexes in the globalizing leisure industry, Borrett (1991) examines the commercialization of sport activities by that new sport, leisure and retail mix resulting with sites for gathering and social interaction. A similar transformation can be seen in the combination of cultural spaces such as theatres, cinemas, opera houses with, commercial spaces such as restaurants, cafes, etc.

Among these, the shopping mall is presented as the dominant example of public leisure complex, representing the nostalgic street as the center of public life for many researchers [Brill (1989), Shields (1992), Cerver(1991), Gumpert and Drucker(1992),

Bloch et. al. (1994), DeBartolo (1988), and Clammer(1992)]. As a synthesis of leisure and commerce, it satisfies the new needs and demands of the society and represents today's leisure and lifestyle. Being one of the most popular leisure sites throughout the world and in Turkey, the shopping mall will be analyzed as a dominant example of public leisure complexes in this study.

### **2.3 THE SHOPPING MALL AS A PUBLIC LEISURE COMPLEX**

Today, the nostalgia for the street and square as the center of public life continues as a design ideology. The shopping mall is conceived as the modern example of the nostalgic street as the public space (Brill, 1989), symbolizing street life with its commercial, leisure and social opportunities in a buildings interior, with the introduction of daylight, interior vegetation, etc. (Shields, 1992). Rybczynsky (1992) identifies the shopping mall as an influential architectural prototype for our time. He examines this influence in a wide range of public buildings that have adopted the shopping mall as an organizing principle, including museums, airports, university buildings, civic centers, office buildings and hotels. He indicates that the shopping mall shaped the course of architecture in the 80's in much the same way that the dome, the columned portico, and the pedimented temple front did in the more distant past.

#### **2.3.1 Evolution of the Shopping Mall**

Contemporary shopping patterns carries the historical evidences. The roots of shopping malls can be traced back to classical forms of market, the open plaza, and covered bazaars. Cerver (1991) studies the historical background of shopping malls and identifies the classical Greek Agora and Roman Forum as the historical basis of

shopping malls. Gumpert and Drucker (1992) also search for the origins of shopping mall and they present the passage from the Greek Agora to the Roman Forum, from mediaeval market places to the nineteenth century shopping arcades and finally, the transformation into the shopping mall.

The Agora was the market place where commercial activities took place in ancient Greek villages. Beside its commercial use, it was a special place for discussions and exchange of ideas as the gathering place of the village. Roman tribes that had conducted trade in open space along main traffic arteries began to relocate commerce to specialized squares for the sale of various goods. The Roman forum was reserved for assembly, reflecting the division of activities. In mediaeval towns, the marketplace was furnished as a site for exchange of goods, services and social transactions. The citizenry defined the market as essentially social, characterized by crowds, close physical contact and personal interchange, which provided an exciting, adventure-filled, festive environment.

In the Islamic City, public realm and consequently urban structure was different from the European medieval town. Until the effects of industrial revolution being seen, important commercial spaces in Ottoman cities were *diikkan*, *han*, *bedesten*, *arasta*, and *covered bazaar*. *Diikkans* were greatest in number and were arranged on both sides of a street, in a section of a covered bazaar, in an *arasta*, a *han*, or a *bedesten*. *Han* had the form of a large courtyard with a multileveled circle of niches, stalls, and shops and it was the place where caravan departs and returns, the resting-place, exchange center and warehouse. The bazaar developed in the city around the *han* constituting the retail center and the meeting place in the city. Grand Bazaar in İstanbul is a significant example,

constituting the commercial and public center of whole İstanbul. Series of shops lining each side of a street were called *arasta*. While the *arasta* shops had vaulted or domed roofs, the street was either covered with a barrel vault or kept open. One of the best examples that survived to our times is Mısır Çarşısı in İstanbul. *Bedesten* was another important commercial space, which had its basis on covered bazaars, with its interior cells, or shops and a covered passageway running along the front of these shops. Among them Mahmut Paşa Bedesteni in Ankara and Galata Bedesteni in İstanbul are two prominent examples (Cezar, 1981).

While the above mentioned commercial structures were seen in the Ottoman cities throughout the eighteenth century, in European cities shops were the integral part of the domestic architecture, usually situated on the ground floor of residential buildings sharing their character and scale, until the industrial revolution. Today's shopping malls have their roots at the nineteenth century European arcades – the glass covered streets, which developed after the industrial revolution. The development of covered commercial arcade in Europe at the beginning of the nineteenth century was the result of a specific set of economic and social conditions. Industry had developed the ability to produce a variety of luxury goods, thus necessitating new methods of marketing, which became possible by the use of new materials and development of new techniques. The glass covered arcade, through its grouping of stores with ample window-display space, created a competitive atmosphere for a continuous, undisturbed shopping; a paved pedestrian place, protected from climate, inhospitable street with its traffic, noise, and dirt; and also a social space, promenade, and a place of public meeting (Bednar, 1989).

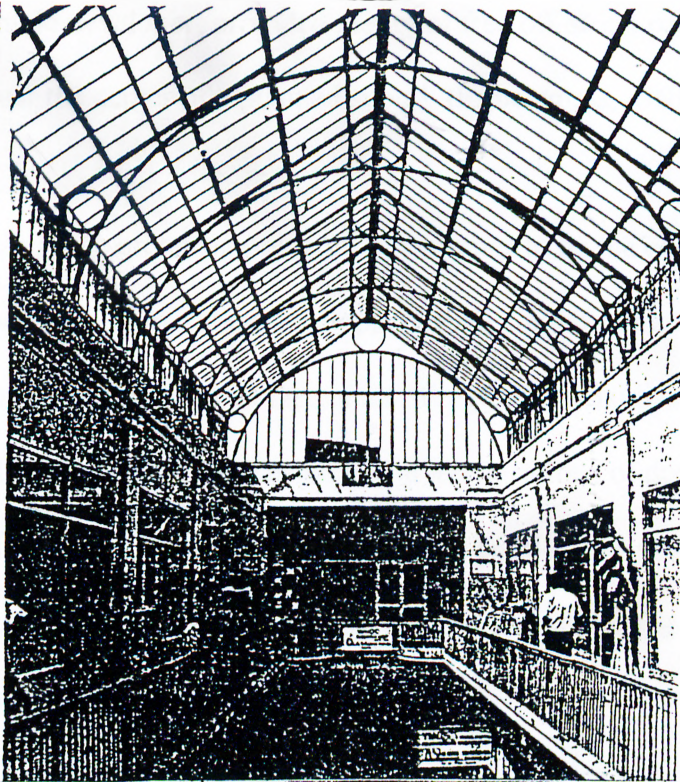
One of the most famous arcades is Milan's Galleria Vittorio Emanuele (see figure 2.1) which reminds today's atrium shopping malls with its variety of commercial, social and leisure pursuits (Rybczynski, 1992). Other important arcades of the time are London's Burlington Arcade, Galleria Umberto I in Naples, Paris' Palais Royal and Galerie d'Orleans in Paris which dominated social life for years, with their various shops, cafes, social clubs, gambling rooms, music halls, hotels, baths and theatres. London, Naples, Moscow, Paris and various European cities also had shopping arcades in the nineteenth century (Rybczynski, 1995). Fitch and Knobel (1990) examines the significance of these arcades as public spaces acting as well designed linking streets, and providing the model of today's urban shopping malls.



**Figure 2.1** Milan's Galleria Vittorio Emanuele, from  
Bednar, M. J. The New Atrium. New York: McGraw Hill, 1986. 9.



On the other hand, until the nineteenth century, there were no fundamental changes in the urban context in Ottoman cities. While the western cities were transformed with the effects of industrial revolution, Ottoman cities kept their traditional Islamic character. It was not until the late Ottoman period that the western building styles along with contemporary techniques and materials started to be seen. By the reorganization of Ottoman institutions according to western models, these new type of large scale buildings highly affected the traditional living patterns of Ottoman society (Parlar, 1993). These glass-covered shopping alleys were simply better lit and refreshing variations of the traditional 'arasta' (Yavuz cited in Parlar, 1993). Abud Efendi Hanı, Hocopoulo Hanı, and Hamdibey Geçidi (see figure 2.2) were from the examples of the buildings of this period in İstanbul.



**Figure 2.2** Hamdi Bey Geçidi in İstanbul, from Enginsoy, *Use of Iron as a New Building Material in Nineteenth Century Western and Ottoman Architecture* (Unpublished Master Thesis). Ankara: ODTÜ, 1990. 127.

While the nineteenth century shopping arcades in Europe form the basis of today's urban shopping malls as the center of urban public life; changes in American cities in the twentieth century led to the development of today's suburban shopping malls. After World War II, the suburbs surrounding large cities rapidly grew in population in conjunction to the extended use of private automobile (Parlar, 1993). Gumpert and Drucker (1992) also mention that the transformation of the city was accompanied by a redistribution of commercial and social functions in the twentieth century. Communities were designated and regulated as areas of work, residence and commerce. The phenomenon of regional shopping malls that emerged during 1950s was a response to the problems of land use segregation, urban congestion and economics that discouraged individual entrepreneurs. They consisted of a number of stores built and leased by a single developer; provided plenty of free off-street parking; and were usually located near the center of a planned suburb (Rybczynski, 1995).

While the urban shopping mall continues to be the center of commerce and public life at the downtown, suburban shopping mall started to transmit in daily lives of newly developed suburbs as the center of regional social life. Gumpert and Drucker (1992) claim that, whether it is located at key locations of downtown or centers of suburbs, the shopping mall was the solution to the problems of congestion, noise and traffic, and symbolized the street life with its commercial, leisure and social opportunities in a building's interior.

Cerver (1991) mentions that the increasing importance of shopping malls in this century is due to a series of sociocultural and economic reasons arising from the establishment

of commerce and consumer marketplace as the basic foundation of the contemporary macro economy, and the close ties between leisure and consumption. He also identifies two primary characteristics inherited from the architectural tradition that survived to our times as the public nature of the marketplace and its urban function.

Besides the inherited characteristics that Cerver identifies, Shields (1992) explains the changing role and the new meanings of the shopping mall. By changes, which lie on the intersection of contemporary cultural change and the political economy of commodity exchange, and the new technology, architecture and the role of commercial spaces changed, as mentioned earlier. As a synthesis of leisure and commerce, malls become larger, more monumental and besides the major stores multiplying, the functions increased by the addition of restaurants, cafes, cinemas, recreation spaces, pools, ice-rinks, conference centers, libraries, banks, hair-dressers, etc.; consisting of almost any service and leisure activity one can imagine. Bergadaa et. al. (1995) explored enduring involvement with shopping and defined four dimensions as leisure, economic, social and apathetic. Although one can think that ease of access, controlled climate and higher market volume are the functional attractions of the mall, Shields (1992) declares that these benefits are quickly outstripped by the symbolic and social values of the shopping mall as a site of communication and interaction; which transforms it into a leisure complex.

### **2.3.2 The Role of Leisure in the Shopping Mall**

Williamson (1992) points out the diversity of experience, which we have while shopping in malls. While the architecture and economic motivations of those who build the mall

may remain fixed and money-specific, our experience of shopping malls, is multiple. Shopping is still important, but so is strolling, watching people, moving at a leisurely pace from one location to the next, and hanging out (Rybczynski, 1992). Leisure supports commerce by increasing the time spent in the mall and hence increases purchases, number of users and frequency of use; it also forms the basis for social interaction, exploration, escape, entertainment and relaxation.

#### 2.3.2.1 Support To Commerce

The place of shopping malls in the distribution of goods and services is significant. The economic contribution of shopping malls as consumption sites is important, as they form the central crucibles of the service economy. Numerous personal services such as banks, travel agencies, doctors, barbers, shoemakers, government offices, etc. may be found besides the shops, restaurants and cafes in the mall (Shields, 1992).

While Shields (1992) explains the significance of shopping malls as consumption sites, Ferguson (1992) defines the basis of consumption as the needs and the wants of an individual. By opening the shopping mall to the passer-by, the distance between consumers and the commodity is broken, encouraging casual visitors. By the arrangement of galleries, the mall circulates the visitors, encourages interaction of envious glances and activates imitative ones. He claims that as a result, the purchase is casual and spontaneous. Nixon (1992) claims that the design and the layout of shops inform acts of looking, activate narcissistic register of the look, by the visual pleasures on offer, and as a result, mobilize the desire to consume.

Shields (1992) also points out the change in the significance of consumption for the economy and the culture of people's everyday lives. In these sites, the new combination of the consumption activities marks a new face in the recent history of urban centers and consumerism. He declares that everyday shopping activities are foregrounded as if on a theater stage, to be observed by passers-by who may vicariously participate in the bustle.

Bloch et. al. (1994) also explain the changing role of shopping mall as a consumption site. They conducted a field research, in three shopping malls in the USA, to see the different activity patterns in a shopping mall, as a consumer habitat and search for the benefits that draw people to the shopping mall. As a result, they reported that shopping is far more than commodity consumption defining several activity patterns; consumption of the mall, capturing non-purchase activities; consumption of services; consumption of time, passing time without clear objectives, browsing and eating.

#### 2.3.2.2 Personal And Social Experience

The shopping mall carries out a diversity of personal and social experience. While leisure forms the basis for social interaction, exploration, escape, entertainment and relaxation in the mall, the space is perceived as one of the safest spaces for children and for the unaccompanied visitors.

Shields (1992) has studied shopping malls as centers of social relationships. According to him, consumers as social actors attempt to consume the symbolic values of objects and the mall environment. Shopping refers to a process dominated by social practice taking on leisure forms as window-shopping, browsing and crowd practice. He claims

that the chance meeting of acquaintance (tactile but not too physical), interaction with a crowd, the sense of presence and social centrality - of something happening beyond the close world of oneself, motivate many who are marginal, alone or simply idle to visit shopping centers. Rybczynski (1995) indicates that, although he still likes to walk through the main street in the downtown, he goes to the mall, when he wants to be part of a crowd.

Bloch et. al. (1991) mention that malls become community centers, offering visitors leisure attractions as music, movies, games, activities like dinning out, attending a conference, playing a round of miniature golf and meeting with friends. Shields (1992) also supports that once one is in the shopping scene; purchasing, browsing, touching, lingering, impulse buying and socializing in the on-purpose built leisure spaces are inevitable. As a result, he claims that consumption as commodity exchange has not disappeared, but it is now less significant in determining the whole play of the scene. Now consumption has become a communal activity, in a form of solidarity, in a form of social exchange.

Altoon (1996) indicates that a shopping mall has the ability to bring the community together for leisure experience and entertainment; allowing its users to take part in programmed cultural, and festival activities, to play chess, or checkers, to take dancing lessons, etc. Sports centers, bowling alleys, promotional areas, theatres, cinemas, restaurants, media arcades and other destination spaces have often been provided as active embodiments of leisure and entertainment areas in shopping malls. Besides the large number of experiential activities, including sports, and leisure areas; children's

museums and play areas in shopping malls have become inventive, educational, entertaining and interactive for children too (Altoon, 1996).

Besides, shopping refers to a process dominated by a social practice of exploration and sight seeing. The activity takes on leisure forms as window-shopping, browsing and crowd practice. While Clammer (1992) points out the new meaning of the site as a space to see, be seen and see what's new; Shields (1992) indicates that the sense of presence and social centrality in a crowd motivate many who are marginal, alone or simply idle to visit shopping centers as positive observers. He declares that everyday shopping activities are foregrounded as if on a theater stage, to be observed by passers-by who may vicariously participate in the bustle and lively activity of consumption without necessarily spending money. In this way, shopping malls become sites not just for purchasing, but for sightseeing, taste of exotic food, their odors, cries, shouts and tactile experiences of crowds.

Francis (1989) addresses the increased desire on the part of many people for public space, depending on the isolation of suburban living, impersonal work environments, and the increased stress of modern life. He regards the shopping mall as a retreat, a form of refuge from the hectic daily schedule of appointments, deadlines, traffic, and uncomfortable weather conditions. Bloch et. al. (1994) support these ideas identifying escape as an important factor drawing visitors to malls. They refer to malls as relief from boredom and an escape from the routine of everyday life. According to their case study on mall behavior and consumption benefits pertaining to malls, malls offer high levels of sensory stimulation and an opportunity to draw out problems. They mention that unlike

movies, cafes and restaurants, there is no attached prejudice to visiting a mall alone. By their free entrance and accessibility, malls are frequently used to defy boredom or loneliness.

### **2.3.3 Factors Influencing the Leisure Aspect of the Shopping Mall**

There are several factors that may affect the choice of shopping malls as a leisure site. These can be of personal origin, which can change from person to person according to age, sex, education, social status, etc.; or social origin, which may probably depend on the mall image, user group or several prejudices. Space as one of the important aspects that affect human behavior and environmental preferences, may be a significant factor affecting the choice of a shopping mall as a leisure site among other malls or leisure pursuits.

Feinberg and Meoli (1991) identify the personal factors that may affect the choice of shopping centers as distance traveled, travel time, accessibility, number and variety of stores and brands carried. The behavior of an individual in deciding how often to purchase a good or service, how much to spend on it, as well as where to purchase generates a total demand for goods. The choice of the site for leisure may also depend on ease of access and parking depending on the traffic flow. There may be an interaction between the individual's shopping decision and the location and proximity of shopping malls (Bacon, 1991). Another significant factor that can affect an individual's choice is the expensiveness of shops and the number and variety of stores and brands to complete several purchase tasks in one trip. Familiarity, personal likes and dislikes - which are



also affected by social and spatial factors - are also significant factors that can affect the choice of a mall as a leisure site over another.

Feinberg and Meoli (1991) identify social factors and mall image as important determinants of mall choice. The choice of a mall as a leisure site generally depends on social factors as a gathering space for social interaction and for practice of exploration and sight seeing, window-shopping, browsing and crowd practice as mentioned earlier. Image factors have influences that may touch upon several motivational dimensions of shopping especially for the choice of leisure, window-shopping and browsing. Mall image is a result of the quality and atmosphere of the stores and the mall environment, the user group and the image of the stores and brands that the mall carries. Individuals can sometimes be motivated to use the space as a leisure site, as everybody from their social group (or the one they want to be in) is there. Also, feeling safe within a group may affect the choice.

The competitive economic environment that a mall faces today is considerably different from the one in the early days, when their primary competition was a downtown business district. Now a mall's primary competition is another mall (Feinberg and Meoli, 1991) As a result, there has been an increasing concern for the design of shopping mall environment each day. A shopping mall must respond to the needs and the demands of the society, and provide opportunity for various activity patterns of different user groups with a variety of leisure pursuits available. Mall environment is one of the important factors that can support leisure in shopping malls. As the market globalizes, aspects that distinguish shopping malls from each other and form the basis of

competition between them are the environmental variables and the atmosphere of the shopping mall.

Besides leisure as an activity, represents diversive behavior and according to Heath (1992) diversive behavior permits or even enhances aesthetic experience. As a result, it is expected that leisure activities can increase aesthetic concern towards environment and hence environmental preference.

Depending on the above-mentioned assumption, environmental preferences will be analyzed as a significant factor that influence the choice of shopping mall as a leisure site in this study. The following chapter will discuss the concept of environmental preference, presenting aesthetic experience as its basis and examine the progress of aesthetic response.

### **3. ENVIRONMENTAL PREFERENCES**

This chapter studies the subject of environmental preferences discussing its origin within environmental aesthetics and its recognition as a self-contained field. The progress of aesthetic experience is discussed through formal and symbolic aspects of environment. Finally, the variables that form an overall impression of the environment and affect preference are presented in this chapter.

The subject of environmental preferences has its origin in the field of environmental aesthetics. Modern aesthetics can be traced back only to the eighteenth century, when the word is reinvented by the philosopher Baumgarten (cited in Porteous 1996). While aesthetics was classified as 'the study of perception', Baumgarten redefined it as 'the science of sensory cognition'. Besides, eighteenth century aestheticians were also responsible for breaking down the preoccupation with beauty. Beauty came to be associated with uniformity, harmony, variety, balance and proportion - the classical aesthetic components, but by the fact that objects without uniformity and variety, or seemed disproportionate arouse emotions too, non-beauty took its place in the concept of aesthetics. Finally the eighteenth century was of importance in its development of what is known as the 'aesthetic attitude' (cited in Porteous 1996). After the analysis of aesthetics as 'good taste' through the nineteenth century, Allesch (1993) shows twentieth century as the period that environmental aesthetics was systematically pursued as an empirical discipline, based on psychological methods. There are various approaches towards environmental aesthetics, from different disciplines and social

groups. Porteous (1996) displays four approaches, which are by the humanists, experimentalists, activists, and planners.

First of the four approaches, is of Humanists, who are critical observers of human nature, environment, and interactions between the two. From humanist's work useful concepts emerged, which can be tested by experimentalists, absorbed by activists, and applied by planners. The second approach towards environmental aesthetics is from experimentalists, whose model is psychology. The experimental approach permits the operationalization of aesthetic concepts, particularly in constructs of environmental preference. Research on the positive relationship between environment and personal well being may well form ground-work for interior architecture, architecture, and urban planning (Porteous, 1996).

Another approach towards environmental aesthetics is from activists who are ready to act upon their values, in contrast to humanists and experimentalists who are generally quiet observers. Porteous (1996) describes them as conservative radicals, with a strong trust toward preservation, conservation, and heritage values. The last approach is through planners, whose work depend upon the concepts generated by humanists, rely upon techniques developed by experimentalists, and are pressured by activists (Porteous, 1996).

### **3.1 APPROACHES TO ENVIRONMENTAL PREFERENCES**

All aesthetic questions involve preference, the art of discrimination and making judgements (Porteous, 1996). The study of environmental preferences has constituted

one of the major research foci within environmental psychology over the last 35 years, with the field of environmental aesthetics, and now recognized as a self-contained field in its own right. Environmental preferences have been fundamentally concerned with explaining people's affective responses to both natural and built environments, particularly the way in which appreciation is linked to the external appearance and design of the environment. It is an inter-disciplinary area with the interests of environmental psychologists, designers, architects, urban planners, and geographers.

There have been different theories, approaches, and assumptions about the relationship between the perceiver and the perceived environment. One of the important distinctions between different approaches is whether they focus on objective or subjective characteristics of the environment. Similarly, the fundamental distinction between different theories of environmental aesthetics is whether they consider preferences to be rooted in individual or social factors. Many pioneering examples of research into environmental aesthetics, influenced by the traditions of experimental and perceptual psychology emphasized an essentially individualistic interpretation of person - environment interaction. The experimentalist approach towards environmental aesthetics permits the operationalization of aesthetic concepts in construction of preferences, by the relationships between environmental attributes, personal characteristics, and affect or response (Porteous, 1996).

The origins of environmental aesthetics could be traced to 1870s, at the pioneering works of Fechner (cited in Crozier, 1994) investigating the relationship between mind and matter, and questioning the nature of aesthetics in a mathematical form with

scientific methods. He tested his formal 'theories of aesthetics' with an analytical research strategy, which held that objects could be broken down into their parts and causal relations could be identified between these elements and responses. Another attempt to quantify the concepts of order, unity, variety, and symmetry – which characterized the discussion of environmental aesthetics and preferences, was from the American mathematician Birkhoff (cited in Crozier, 1994). He expressed the relationship between preference (Aesthetic measure = M), order (O), and complexity (C) by the mathematical relationship,  $M=O/C$ .

Another important influence in environmental preferences was the psychological approach pioneered by Berlyne (1971), often identified with experimental aesthetics. Borrowing from neurophysiological theory, Berlyne suggested that aesthetic responses can be predicted by studies of the way the brain operates and reacts to stimuli, in particular that evaluation is a function of the degree to which a visual stimulus activates an organism. Such a theory thus, posits arousal as the bases of environmental assessment implying that the assessment of an environment is determined by the amount of perceptual information it conveys. Psychophysical models attempted to determine mathematical relationships between the physical characteristics of an environment or design (e.g. form, size or color) and the affective responses of human observers. This model has provided the basis for innumerable studies of environmental preferences, with attempt to identify the sets of emotions or aesthetic responses that are triggered by specific qualities of the environment.

In Berlyne's theory of the impact of stimuli on arousal and exploratory activity, a set of interrelated attributes of stimuli were postulated under the general rubric of collative properties – those that elicit, implicit, or explicit comparative responses. Among these Berlyne listed *complexity*, *novelty*, *incongruity*, and *surprisingness*. Wohlwill (1976) added *diversity* and *ambiguity* to Berlyne's set. The essential aspect of these several stimulus attributes is that all relate to the uncertainty contained within a stimulus, or the conflict it engenders in the individual in attempting to interpret it. Accordingly, a stimulus elicits investigatory or exploratory responses designed to reduce the uncertainty or conflict engendered by it, to the extent that it possesses such collative properties. According to Berlyne (1971), the tendency of the individual to engage in voluntary active exploration of a stimulus is proportional to the amount of uncertainty or conflict it engenders; it is thus highest for stimuli relatively rich in diversity, structural complexity, novelty, incongruity, and surprisingness.

While Berlyne suggests that complexity is a significant factor in people's evaluation of the environment and most preferred environmental settings are typified by moderate levels of complexity; the idea that complexity is the major factor affecting the appreciation of the environment has been criticized by some researchers including Wohlwill (1976) and Kaplan (1992).

The second theory of Berlyne (cited in Wohlwill, 1976) depends on two exploratory attitudes, the diversive and specific. Diverse exploration entails a search for stimuli that will result in some optimal level of stimulation, one that maintains the individual in an appropriate state of arousal. The nature of the stimulation most often selected, will

fall at some intermediary value with regard to the uncertainty contained within it, whether considered in terms of novelty, diversity, surprisingness, or etc. In other words, diversive exploration is aimed at establishing some optimal level of arousal in the individual, and is typically satisfied by some intermediary level of uncertainty in the stimulus, which may in fact be relatively low. This is the major difference between this type of exploration, and the specific, which applies when an individual is confronted with a particular stimulus generating conflict, or uncertainty. In this case, the amount of effort expended in exploring the stimulus in question is assumed to be a monotonic function of its uncertainty, based on any of the above-mentioned collative variables. Arousal is implicated in both of these exploratory modes, but in diversive, the activity is directed at an increase in the arousal level beyond a low level, while in specific it is started by a high level of arousal and directed at lowering this level. Wohlwill (1976) suggests that stimuli that are high in aesthetic appeal are likely to meet the necessary condition for diversive arousal. According to Berlyne (1971), once curiosity concerning a stimulus has been satisfied, the individual will prefer stimuli of lesser complexity, or greater regularity.

A different approach towards environmental preferences is from Kaplan (1992) who views preference as a powerful tool for understanding the patterns underlying what we consider to be aesthetic. He supports that people's reactions to things and spaces depend on people's purposes and analyzing purposes is important to understand preferences. He identifies two purposes that people are concerned with throughout their hours awake, which also have an important impact on the long-term survival of the individual. He calls these persisting purposes as "making sense" and "involvement". *Making sense*



refers to the concern to comprehend, to keep one's bearings, to understand what is going on in the immediate here and now, and often in some larger world as well. *Involvement* refers to the concern to figure out, to learn, to be stimulated. Although, at first glance they look as the opposite ends of a continuum, there are environments that one can comprehend and at the same time be stimulated by, while there are also environments that offer neither possibility.

If making sense and involvement are pervasive purposes for humans, than environments that support these purposes should be preferred. The term *support*, Kaplan (1992) uses, refers to whatever an environment might afford that makes a particular purpose more likely to be pursued to be a successful conclusion. For making sense, this refers to the perceived structure of the environment. It takes in anything that would make the environment easier to map, easier to characterize, to summarize to oneself. It involves those affordances that increase one's sense of comprehension. For involvement, the supportive environment is the one rich in possibility. In a sense, the affordances for involvement entail the raw materials for thinking about and coming to understand.

In reacting to the visual environment, people seem to relate to the information they pick up in two quite different ways. Kaplan (1992) defines them as the visual array and the three dimensional space. While complexity – the primary determinant of the aesthetic theory of Berlyne, and coherence are the main components of the visual array; mystery and legibility are the main components of the three-dimensional space. These relationships can be seen in Kaplan's preference matrix, in Figure 3.1 below.

Level of interpretation	Making sense	Involvement
The visual array	Coherence	Complexity
Three-dimensional space	Legibility	Mystery

**Figure 3.1** Kaplan's Preference Matrix. from

Kaplan S. "Perception and Landscape conceptions and misconceptions".  
Environmental Aesthetics: Theory, Research and Applications. Ed. Jack L. Nasar. New York:  
 Cambridge University Press., 1992. 51.

The visual array is like a picture plane and includes the two-dimensional pattern - environment in front is like a flat pattern, and the three-dimensional pattern of space that unfolds before them. *Complexity* is the involvement component of the visual array, at this surface level of analysis. It is also referred to as diversity or richness. It reflects how much is going on in a space, and if there is very little going on, then preference is likely to be low.

*Coherence* is the making-sense component at this surface level of analysis. It includes those factors that make the picture plane easier to organize, to comprehend, and to structure. Coherence is strengthened by anything that makes it easier to organize the patterns of light and dark into a manageable number of major objects and/or areas. These include repeated elements, and smooth textures that identify a region or an area of the picture plane. It is also important that a change in texture or brightness in the visual array is associated with something-important going on in the scene. In other words, something that draws attention within the scene should turn out to be an important object

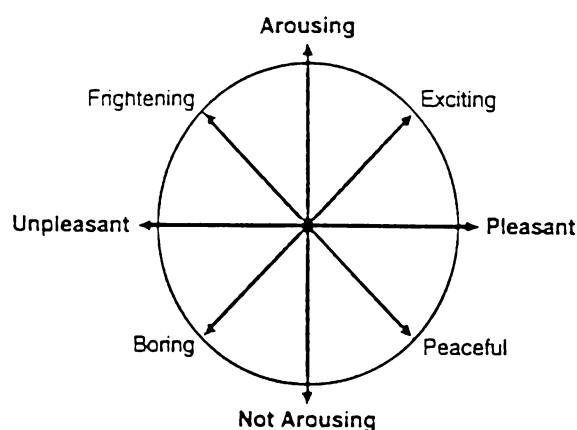
or a boundary between regions. If what draws one's attention and what is worth looking at turn out to be different properties, then the space lacks coherence.

Kaplan (1992) claims that the most central issue in analyzing a scene involves the three-dimensional space and its implications, as the visual array is limited, while natural and man-made environments are three-dimensional. *Mystery* is the involvement component of three-dimensional space. Kaplan calls the opportunity to gather new information in the context of an inferred space, mystery. Some investigators have referred to similar concepts as surprise or novelty (Berlyne, 1971). But novelty implies that one perceives something new, and a highly mysterious scene may have nothing new. Likewise, surprise implies the presence of something unexpected. Mystery involves not the presence of new information, but its promise. Mystery arouses curiosity. Spaces high in mystery are characterized by continuity, there is a connection between what is seen, and what is anticipated. It implies a limited degree of uncertainty, whose introduction is under control.

*Legibility*, refers to the making-sense of three-dimensional space. Like mystery, legibility entails a promise, a prediction, but in this case, not of the opportunity to learn, but to function. It is concerned with interpreting the space with one's way and not trivially with finding one's way back. Hence, it deals with the structuring of the space, with its differentiation and readability. A highly legible scene is the one that is easy to oversee and to form a cognitive map of. Legibility is greater when there is considerable apparent depth and a well-defined space. Another aspect of legibility involves the ease with which one can perceive the space as divided into sub-areas. There is a strong

similarity here to coherence, but coherence concerns the conditions for perceiving, where as legibility concerns the conditions for moving within the space (Kaplan, 1992).

Mehrabian and Russell (1974) view emotions as a mediator between environment, personality and behavior, forming the basis for environmental preferences. They present pleasure and arousal as the primary emotions and construct a model, which is a circumplex – a circular pattern of emotions that forms an infinite number of combinations of pleasure and arousal. In their framework, environmental variables including spatial features as well as personal variables, are believed to influence the level of emotion in a setting. These emotions, in turn, influence behaviors as the desire to approach or avoid a setting. Their pleasure – arousal hypothesis indicates that individuals want to approach physical settings that are moderately arousing and maximally pleasurable. They approached spaces as exciting, peaceful, boring, and frightening according to the carried level of arousal and pleasure (See Figure 3.2 below).



**Figure 3.2** Mehrabian and Russell's Circumplex Model for Environmental Preferences, from Gifford, R. Environmental Psychology: Principles and Practice. Boston: Allyn and Bacon, 1997. 63.

Many other researchers have therefore extended the remit of psychophysical models to incorporate other sets of physical factors both intrinsic and extrinsic to a setting, including biological diversity, prospect and refuge (Appleton, 1992). The attraction of such approaches that focus on formal qualities of the environment is obvious, as such qualities can be measured in quantitative ways, and easily compared with other specified resources of a place (Hubbard, 1996).

By experiential aesthetics, which focuses on responses, symbolic aspects of design gained importance as well as the sensory and formal attributes. The unique meaning each individual attribute to their environment suggests that environmental preferences may be purely subjective. However, Hubbard (1996) suggests that environmental meanings, hence preferences are socially constructed, and that there exist structures of perception, cognition and action common to all members of a group based on their social and cultural background. Social meanings which people attach to their surroundings diverge between different social and cultural groups. As there are major differences in environmental perception, conceptualization and evaluation for different cultures, Hubbard (1996) suggests that environmental preferences are constructed through codes or knowledge structures which are socially transmitted and based on learning and culture. He identifies age, gender, class, life style, and education as the significant factors affecting knowledge structures. He also supports that the differences in knowledge structures results in differences in aesthetic appreciation between designers and the lay public.

### 3.2 AESTHETIC EXPERIENCE AS THE BASIS FOR ENVIRONMENTAL PREFERENCES

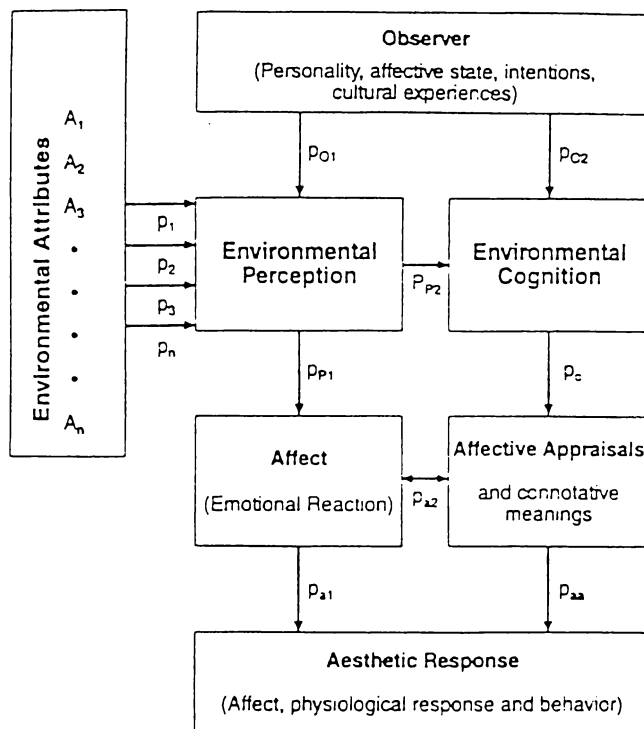
Environmental preference is a complex phenomenon, which has its basis on aesthetic experience. Aesthetic experience is defined as favorable emotional appraisals or evaluations and results from an ongoing interaction between active humans and their environment. Aesthetic experience forming the basis for environmental preference may vary according to three variables as observer, environment, and activity.

Environmental preference varies according to environmental actors with different age, sex, personality, social and cultural experience, expectations, associations, and internal constructs; while it changes according to different spaces with different environmental variables, their organization and combination to create an overall impression or associational meaning. Environmental preference also varies according to different activities depending on the objectives behind. Heath (1992) examines objectives in two categories as *instrumental* and *diversive* based on Berlyne's (cited in Wohlwill, 1976) classification of exploratory attitudes. *Instrumental* objectives are the ones with specific plans. As long as people have these kind of specific objectives, the order or interest of the environment is likely to be experienced only casually, or momentarily. Spaces will be valued for the features that contribute to the success of the activity being pursued.

When objectives are *diversive* like the tourist's, window-shopper's, or stroller's, the various possibilities of the environment for interest or excitement, for calm or order, or etc. are now possibly sought and appreciated rather than casually encountered. Although there is not much empirical study to support, the hypothesis that Heath studies is that

*instrumental* behavior inhibits aesthetic experience, whereas *diversive* behavior permits or even enhances it. As mentioned earlier, leisure as an activity, represents *diversive* behavior, and depending on the above-mentioned assumption, it is expected that leisure activities can increase aesthetic experience, concern towards environment and hence environmental preferences.

Although aesthetic experience and hence environmental preference varies according to the above-mentioned factors, it also has commonalties in its progress across individuals. Nasar (1994) examines aesthetic experience and bases aesthetic response on the relationships of individuals to building properties, through perception and cognition. These relationships, displaying the progress of aesthetic response, can be seen in Figure 3.3.



**Figure 3.3** The Progress of Aesthetic Response, from Nasar, J. L. The Evaluative Image of the City. California: Sage Publications, 1998.

According to Beardsley (1981), aesthetic experience exhibits five criterions; while exhibiting the first one, it should exhibit at least three of the remaining four. These five criteria are object focus, felt freedom, detached affect, active discovery, and wholeness. Aesthetic experience is the basis for environmental preferences and is the result of our sensory perception and cognition, resulting with affect – emotion.

The aesthetic affect of environment on preference is examined by Nasar (1992), Lang (1992), and Porteous (1996) in two distinct categories: (1) formal aesthetics, and (2) symbolic aesthetics.

### **3.2.1 Experience through Formal Aesthetics**

Formal aesthetics is concerned with the pleasurableness of the sensations one receives from the environment, the appreciation of the physical features of the space, the sequences of visual world. It includes the study of the physical features of space, including form, shape, light, color, size, texture, order, sound, and smell. Aesthetic responses, particularly to the features referred to as formal, may precede and occur partly independent of cognition. Nasar (1994) supports its development directly through perception (see Figure 3.3).

#### **3.2.1.1 The Senses**

Places can readily be described by the characteristic mix of sense perceptions available to the average able-bodied member of the public. The identity of places is multisensory, but in some cases one or more perceptions may be dominant.



There appear to be two basic modes of perception. Autocentric (subject-centered) senses combine sensory quality and pleasure; the concern here is how people feel. In contrast allocentric (object-centered) senses are concerned with objectification and knowledge; these senses involve attention and directionality. Vision, except color perception to some extent, is dominantly allocentric. Speech sounds are allocentric, whereas most sounds, as with all other senses, are autocentric. While children are basically autocentric, they learn to develop allocentric modes in Western cultures. This is not true for other cultures, for many of these prize the autocentric, as with tactility (Japan), smell (Oceania), and kinesthesia (Africa). Among Western adults vision is dominant and preferred, while autocentric senses such as smell are atrophied.

When vision is experimentally placed in conflict with other senses, it inevitably turns out to be the dominant sense. Studies of aesthetic quality judgements in the field using composite visual, auditory and other scales have demonstrated that composite perceptions are heavily weighted towards the visual. Orientation in space is mainly achieved visually. Visual perception relies on space, distance, light, color, form, and texture. Other than vision, sound is the only sense extensively studied in the field of environmental aesthetics. It strongly contrasts with vision in many ways.

Unlike visual space, which is sectoral, acoustic space is nonlocational, spherical, and all surrounding. It has no obvious boundaries, and in contrast with vision, tends to emphasize space itself rather than objects in space. Sounds compared with things seen are more transitory, less precise in terms of orientation and less capturable. Compared to vision, sound perception is information-poor, while it is emotion-rich. In environmental

terms, soundscape is an important component of our sensory environment. People are strongly aroused by screams, music, thunder, while relaxed by the sounds of water, leaves and wind.

The human sense of smell is not well developed, but is of vital importance.

Environmentally, smell is even more information-poor and emotion-rich than sound.

Odors arouse feelings of pleasure, well being, nostalgia, affection and revulsion. The smells of specific places, people, etc. are reassuring and deepen our sense of attachment to environment and society. It is an important component in the satisfaction of our physiological, safety and affiliation needs.

Tactility, the haptic sense, produces a touchscape. The skin, being the largest sensory organ, is extremely sensitive. Being sensation-rich and information-poor, it is most primitive and sensuous of all senses and is vital for well being. Tactility is clearly related to the subsidiary senses of kinesthesia and the sense of temperature and air movement. The former involves the speed of bodily movement, the sharpness of angles and curves, the rate of directional change, declivity, slipperiness, and changes in body orientation (Porteous, 1996).

#### 3.2.1.2 Environmental Perception

There has been considerable debate about whether humans can experience emotional responses independent of and before recognition or cognition. Nasar (1994) claims that rapid emotional responses to gross environmental characteristics can occur independent of and before cognition. Certain kinds of aesthetic responses, particularly the ones

referred to as formal, may precede and occur independently of cognition. Perception has a direct probabilistic relation to the affective response (see Figure 3.3 for the progress of aesthetic response through perception).

Environmental perception is the initial gathering of information. It includes the ways and means by which we collect information through all our senses; seeing, hearing, smelling, tasting, and touching (Gifford, 1997). When psychologists began to study perception, the process is simplified to present the perceiver with a simple stimulus. The traditional approach was a path to understand how complex stimuli in daily life are perceived, examining the perception process in the laboratory, where maximum control over all possible extraneous influences may be exerted. Environmental psychologists, in contrast, embrace the complexity of the environmental displays that is presented to subjects.

Ittelson (1973) distinguishes between the older approach, which he calls object perception, and the newer environmental perception. While in object perception research, the emphasis is on the properties of simple stimuli; in environmental perception the emphasis is on larger scenes treated as whole entities. Another difference is that environmental perception accepts participants as part of the scene. While, in object perception, the perceiver is connected to the environmental display by a clear purpose, environmental perception divides the purposes into utilitarian and aesthetic purposes. Environmental perceptions such as length, distance, and size are largely dependent on the physical features of the scene, and how they are arranged. But,

personal factors like familiarity, culture, and training also affect the way we see the world.

There are several theories to provide a guide for environmental perception. One of the influential approaches to environmental perception is based on the work of Brunswik (cited in Gifford, 1997), who views that both the perceiver and the environment are important. Brunswik's probabilistic functionalism refers to the acceptance that the environment offers a multitude of cues and the perceiver must make sense of the most important ones to function effectively in a setting. He also believes that no single cue is, either perfectly reliable or perfectly unreliable, but rather it has a certain probability of being an accurate clue about the true nature of the environment.

Gibson's approach (cited in Gifford, 1997) to environmental perception differs from Brunswik's, in that Gibson believes certain arrangements of cues give the perceiver direct, immediate perceptions of the environment. He clusters the components of the world as substances (such as clay, steel, glass), and surfaces (such as floors, walls, ceilings). The arrangement of these substances and surfaces, called layouts, provide affordances or instantly detectable functions. For example, a solid horizontal surface is said to offer or afford support and rest. An extended solid horizontal surface affords locomotion, but a vertical solid surface affords mechanical contact and stops locomotion.

Berlyne (1997), who contributed important insights to environmental aesthetics and preferences, emphasizes the distinction between perception and cognition. His view is

that, environmental stimulation has several collative properties – characteristics of the stimulus that cause the perceiver to pay attention, investigate further and compare. As mentioned earlier, these collative properties include novelty, incongruity, complexity, and surprisingness. According to Berlyne, these influence the perceiver's aesthetic judgements and desire to explore through hedonic tone (beauty or pleasure) and uncertainty arousal. Each of these theories has stimulated research into the nature of environmental perception, and has been extended into practical domains of interior architecture, architecture, and urban planning (Gifford, 1997).

### **3.2.2 Experience through Symbolic Aesthetics**

Symbolic aesthetics is concerned with the appreciation of the associational meanings that the physical features of the environment cause. It includes the study of the impressions, emotions and symbolic meanings that the physical features of space - form, shape, light, color, size, texture, material, order, sound, and smell, arouse in the users of the space. Beside their unique effects, their combinations form building or spatial configurations or to represent specific styles. In addition to the physical features, their relationships and arrangements in space, personal features like age, sex, education, past experiences, cultural, regional and religious features have an effect on the associational meanings. Nasar (1994) supports its development by cognition (see Figure 3.3).

#### **3.2.2.1 Environmental Cognition**

Researches and the empirical data confirm that cognition also affects emotion. Cognition need not involve rational calculation. It can involve categorization and inference without conscious thought and metaphoric responses as a result of the schema. Certain kinds of

aesthetic responses, particularly those that are called as symbolic, may reflect this cognitive component. Cognition has a direct probabilistic relation to the affective appraisals and from there to aesthetic response (Nasar, 1994). (See Figure 3.3).

Environmental cognition concerns the way we acquire, store, organize, and recall information about locations, distances, and arrangements in buildings, streets, and outdoors. It includes spatial and nonspatial environmental cognition. Spatial cognition is the thinking processes that help us wayfind – successfully navigate in an environment, estimate distances, recognize route cues, make and read maps, and generally understand the relative location in space of different places. Spatial cognition includes the concept of cognitive maps, which are pictorial and semantic images in our minds of how places are arranged. Memory is an important nonspatial part of environmental cognition. Spatial cognition research is concerned with memory for, orientation in, and knowledge about distances and locations in physical settings.

Nohl (1992) studies symbolic aesthetics through environmental cognition. He claims that symbolic meaning results from three levels of response:

- 1) perceptive cognition, which involves recognition, appraisal and knowledge of a place,
- 2) symptomatic cognition, in which objects disclose process behind them, and
- 3) symbolic cognition, in which objects become symbols for something else.

An important principle of spatial cognition is that people do not process information about the environment like the way cameras or computers do; while it is full of errors, it

also differs from person to person by one's stage of life, familiarity or experience with the setting, spatial or perceptual ability, cognitive biases, and physical features of the built environment. The spatial cognition of children generally follows a sequence moving from egocentric to projective to abstract. The spatial cognition of older people differs from those of younger adults. Where lowered mobility or sensory abilities limit their experience, they may perform less well and their memories of the environment are more personalized. Male-female differences in spatial cognition exist, and mainly reflect the different travel experiences of men and women. Experience in a setting gives one a fuller and better-organized cognitive image of it.

Spatial cognition is also affected by characteristics of the place about which one is cognizing. Gifford (1997) displaces legibility as an important feature for places to be easily comprehended. Lynch (1960) suggests five elements of built environments that strongly contribute to legibility: *paths* – the routes along which people travel, *edges* – nontraveled lines, *districts* – moderate sized areas that are identified as having a particular character, *nodes* – well known points that people travel to and from, often at the junctures of important paths, *landmarks* – easily viewed elements.

There are several theories of environmental cognition concentrating on the physical environment, cognitive, or physiological aspects of spatial cognition. The legibility approach focuses on how settings from building interiors to cities should be arranged to promote easy comprehension of them by individuals who need to find their way. Two cognitive theories, intellectual growth and planning approaches, focus on the way that children learn to comprehend the settings around them as their cognitive abilities

increase, and the ways in which the travel plans affect both typical and optimal wayfinding. Two physiological theories, the hippocampal and world graph approaches, examine the basis of wayfinding in the brain. These theories complement one another, because a full understanding of spatial cognition will require knowledge of the physical environment, thoughts about those spaces, and the neural basis of it all (Gifford, 1997).

### **3.3 ENVIRONMENT AS A SOURCE OF AFFECT ON PREFERENCE**

As one of the determinants of preference is the environment, mall environment and hence mall design gains importance for this study. Danger (1987) claims that the design of the shopping mall should reflect merchandising and marketing policy; be appropriate to the location of the establishment, type of merchandise and service offered, and the target customer group that is desired to attach; persuade people to identify themselves with the establishment, draw them inside and encourage them to stay; facilitate circulation within the establishment, create an impact, and encourage a buying mood; and create the character and mood of the establishment. He (1987) displays design, which is the result of the interaction of all environmental variables by its physical and psychological features affecting behavior and emotions as the most powerful tool to attract attention, keep the customer happy, ensure purchase and provide social interaction.

Color, light, size, texture, sound, smell, and temperature, are the environmental factors in built-environments and their impact influence people's psychological responses and physiological well being. These environmental factors affect people on both visual and non-visual basis; while they have a physical affect through senses by perception, the



meanings they are associated with affect emotions, and behaviors (Mahnke and Mahnke, 1987). These environmental variables has unique or combinational effects on the definition of space, influence of behavior and orientation, arousal of feelings and emotions, representation of symbols, and association of meanings in spaces. In this context, they affect the perception of the factors that are presented as influencing preference by Berlyne (1971), Wohlwill (1976), Kaplan (1992), and various others in previous sections and as a result, the whole variables – in the built environment communicate an overall impression to the viewer (Mahnke, 1996).

One of the environmental variables is color, it influences the estimation of volume, weight, temperature, time and noise (Mahnke, 1996); affects the perception of size, making spaces look larger, smaller, higher or lower, nearer or further away, and influences unity, complexity, visibility, and spaciousness. Besides, color can be used to produce required mood associations to produce excitement, relaxation, activity, passivity, etc. Although it is known that color applications affect the experiences and performances of people in settings, there are no hard-wired linkages between environmental colors and particular judgemental or emotional states (Space Human Factors Office, 1986), as it's preference is strongly influenced by age, sex, culture, religion, education, personality, and function (Danger, 1987). As a result, color can be used to attract attention, increase social interaction, control orientation, and contribute to safety in public spaces, after investigating the user group and required functions of the space.

Another important variable that affect preference is light, which has a significant role on visual comfort and information for physical orientation and location by defining circulation routes and emphasizing intersections, as well as on physical security by complementing structure and forming clearly visible egress routes. Besides light has an important role on required moods for entertainment, relaxation, etc., on time orientation by creating awareness of day-night cycle through windows and skylights, and on contact with nature and people by openings allowing daylight penetration (Egan, 1983). While characteristics of lighting system should be considered to create atmosphere (Danger, 1987); daylighting is also presented as an important feature, which should be used with compliment to artificial lighting to achieve contact with nature and people, and to induce variety and feelings of well being and freshness.

Form as an environmental variable influence people's behaviors causing movement, stability or communication, giving direction, and orientation. Point generated forms like circle, sphere, and their variations marks a location, a focal point in space and capable of organizing activities and communication about itself (Ching, 1987). Form also affects psychological responses as symbols through archetypes, which differs according to culture, region, and religion (Rawson, 1987). Form with order and proportions, and interaction with color and light, can be used for the overall image of the environment.

Size is another variable, which both identifies the physical definitions of shapes, forms, volumes, and colors and affects the psychological responses to them. Forms and colors in different sizes have different impacts on direction, behavior, and feelings, as they form different impressions and are associated with different meanings and emotions.

Size, as a physical variable, gains importance by its features such as proportion and scale in spaces. Different proportional relationships of spaces or parts of spaces, and their evaluation according to human scale affect the overall personal impression of space (Ching, 1987).

Different combinational effects of physical variables like color, light, form, and size result with the evaluation of different impressions and spatial atmospheres. For example experience of spaciousness in an environment can be dependent on variables like spatial organization of different parts of the spaces and the density of the contents, opening sizes and positions, and space form and its proportions (İmamoğlu, 1975).

In addition to the above-mentioned visual variables of environment, sound, smell, temperature and air movement are other significant physical environmental factors affecting preference. Beside their formal aspects contributing to comfort, these are the most emotion-rich variables of the environment. People are strongly aroused by high intensity sounds, and music in the environment, while relaxed by natural sounds like water, wind, or leaves (Porteous, 1996). Gifford (1997) also explains the significant effects of music in public environments, including shops, shopping malls, and restaurants. He examines the effects of different levels of music on movement speed, and time spent on different activities, and the amount of purchase made. While the effect of temperature and air movement at comfort levels is known to affect preference of environments, odors arousing feelings of pleasure, well-being, nostalgia, and affection, are presented as reassuring and deepening to the sense of place attachment by Porteous (1996). Another variable affecting preference of environments is crowding. Gifford

(1997) claims that there is a relationship between time spent, level of social interaction and crowding.

The variables mentioned up to now, will be analyzed as a whole within a mall environment, to test the assumption that leisure activities can increase aesthetic experience, concern towards environment and hence influence environmental preferences. As a result the choice of shopping mall as a leisure site will be examined with respect to the environmental preferences of the users through the field research, which is presented in the previous chapter.

#### **4. THE FIELD RESEARCH ON A SHOPPING MALL IN ANKARA**

Throughout the previous chapters the phenomenon of leisure is discussed, presenting the shopping mall as a leisure site, the concept of environmental preferences is examined, and variables of the mall environment are studied affecting these preferences. This chapter presents a field research analyzing the relationship between leisure (supporting the shopping mall) and environmental preferences (supporting the choice of a shopping mall).

Previous studies on environmental preferences approach the subject by analyzing environmental or personal factors that affect preferences, through research by environmental appraisal or assessment. Environmental appraisal refers to individuals' personal impressions of an environment. Both environmental appraisal and assessment involve an observer and a place, but in research on appraisals, more emphasis is placed on understanding the person than understanding the place. Environmental assessment refers to the combination of ratings by several observers (experts or users of the environment) into a broader-based judgement of an environment. The emphasis is on investigating the environment (usually its quality, or lack of quality) rather than understanding the people who make the judgements (Gifford, 1997).

In this study, personal impressions of and preferences for a mall environment are used to evaluate whether they affect the choice of the shopping mall as a leisure site. While collecting personal impressions and preferences of the mall users to understand the way they perceive and experience the environment, the collected judgements are used to

assess the mall environment to be further used for the implications for the design of shopping malls.

In the previous studies on environmental preferences, major environmental appraisal and assessment methods include the deliverance of a blank piece of paper to the observers, expecting their free descriptions and evaluations of the environment; asking open-ended questions about the environment, that the subjects can respond by the way they perceive and evaluate the environment. Giving them a standardized scale of environmental descriptors, by which subjects can select the appropriate descriptors to evaluate the environment is another method. These methods can both be utilized directly in the environment, or through simulation with photographs, plans, maps, etc. of the environment.

While researchers like Kasmar (1992) work for the development of a usable lexicon of environmental descriptors, empirical studies (İmamoğlu, 1975; Corraliza and Aragonés, 1988; Hersberger and Caas, 1992) contribute to its development by environmental scales utilized to test how specific environments are described through the physical variables of the environment. As this study aims to figure out the significance of leisure in mall environments and the influence of environmental preferences on the choice of shopping mall as a leisure site, it may also contribute to the development of environmental descriptors in Turkish language.

#### **4.1 DESIGN OF THE FIELD RESEARCH**

The study aims to examine the significance of leisure in the shopping mall and the influence of environmental preferences on the choice of shopping mall for leisure. In this context, a field research is designed in an urban shopping mall, addressing a diversity of users from the downtown and suburbs of Ankara, to minimize the bias of familiarity of local users, which can decrease environmental concern and preferences.

##### **4.1.1 Site Selection**

Karum Shopping Mall was chosen, depending on its significance in the urban public life of Ankara, with its central location, diversity of users and the variety of leisure activities on offer. The shopping mall is located at the city center of Ankara, constituting a node – at the intersection of main paths to the various regions of the city where people travel to and from, or pass by, and a landmark – which people use to describe routes and places, and meet friends. Depending on its central location, it houses a diversity of users, from local people to the ones coming from the suburbs of Ankara. By various commercial, service, and leisure activities on offer, it attracts users with different age, sex, education and income.

Karum is a linear type of atrium (Saxon, 1986) building. Spatially, it has a form of a rectangular prism, with two cylindrical spaces attached at the two shorter sides (see floor plans in Appendix E). It has its main entrance through the avenue from one of the short sides and three side entrances, two from the adjacent street, and other from the parking area through one of the long sides. Karum has seven floors, of which three are physically open to the atrium well and used for commercial purposes, holding various shops –

including women's and men's fashion, accessories, furniture, audio-video, etc., a supermarket, a bank, a cafe and two restaurants. The remaining four floors hold the offices, hairdressers, the tailor and are not physically connected to the gallery, just have a visual connection through the windows forming the interior facade of the gallery.

Karum has an atrium well dominating the whole space and leading to a glass vaulted atria (See Figure 4.1). There is a circulation corridor enclosing the gallery that repeats at all three commercial floors with a row of shops at each, which is connected to a secondary corridor with shops at both sides. The gallery dominates the whole space including the first core of circulation corridors and is reserved for socializing aspects; as it holds an open café, a play area for children, and an exhibition area at the ground floor. It has the commercial areas including the shops, and circulation corridors organized around it, as subspaces, allowing flow and visual connection throughout the space. The gallery space holding the café, play area for children, and exhibition area is defined by the use of planting at its periphery. Additionally, water is used to form a small pool within the café area (See Figure 4.2).

During the daytime Karum is illuminated by daylight penetrating through the atrium. Despite the gallery and the first row of circulation corridors utilizing the daylight, the secondary corridors at the back of the shops are illuminated by artificial lighting. The white facade of the office floors, enclosing the atrium well, makes use of internal reflectance of daylight, penetrating through the atrium, to reach the lower spaces as well as to the adjacent spaces. Karum has a color scheme of white, cream, tints and shades of beige, and gray, while there are no high-saturated hues in the space organization, except



the ones provided by signage and displays of shops. Light-colored, polished marbles with high reflectivity, glass, and metal are the materials used within the mall space (See figure 4.3).



**Figure 4.1** Interior view of Karum showing the office and commercial floors, besides the atrium.





Figure 4.2 Interior view of Karum through the main entrance.



Figure 4.3 Interior view of Karum towards the main entrance.

#### **4.1.2 Research Questions and Hypothesis:**

The research questions of the study are as follows:

- 1) Is there a relationship between the purpose of mall visit and the performed activities within?
- 2) Are environmental preferences a significant factor influencing the choice of shopping mall as a leisure site?
- 3) Is interior architecture education a significant factor affecting the aesthetic experience and environmental concern in a shopping mall?

The related hypotheses of the study are as follows:

- 1) Leisure is the dominant activity in the shopping mall, independent of the purpose of mall visit.
- 2) The choice of a shopping mall as a leisure site is influenced by environmental preferences.
- 3) Interior architectural education is a significant factor affecting the aesthetic experience and environmental concern in a shopping mall.

#### **4.2 METHODOLOGY**

The aim of the study is to examine the significance of leisure in a mall environment, the influence of environmental preferences on the choice of shopping mall as a leisure site and the probable difference between interior architecture students and public users in their aesthetic experience and environmental concerns. The study is conducted with a non-experimental design as a field research, with a comparative analysis to see the relationship between the mall environment and the preferences, besides the differences

between interior architects – who design environments, and public users – whom environments are designed for.

A pilot study was carried out with 30 subjects at the site to test the clarity of the questionnaire, to measure the required time to conduct it and to collect a variety of environmental adjectives to be used in the actual questionnaire.

A sample size of 160 subjects was decided to achieve sample diversity. Quota sampling was used in the study, by keeping the number of interior architecture students and public users at the same age group (18-30) equal (40 interior architecture students and 40 subjects from the public between ages 18-30) in order to see the differences between their environmental experience, concern, and preferences. Quota sampling is further applied by keeping male and female users equal among groups (40 males and 40 females in each group) to perceive the probable differences of environmental preferences for leisure depending on sex difference.

Public users between the ages 18 and 60 were selected as subjects to prevent biases, which can be associated by younger people as the mall choice may be of their parents. To minimize the probable bias depending on the differences between working and non-working people, the study was conducted at weekends between 11 a.m. and 8 p.m. Exit interviews were conducted with the public users so that the respondents could report on their just completed mall visit. Subjects were selected randomly depending on their exit order through the main door.



The second subject group were 80 interior architecture students of Bilkent University. Quota sampling is applied, keeping number of students from each four grades equal - 20 from each, with 10 males and 10 females, who are selected randomly depending on their order in the list. They responded to the same questionnaire according to their last visit to the shopping mall.

As interior architecture education is independent from the performed activities in a mall visit, all 160 subjects were used to test the first hypothesis. Whereas, for the analysis of the second hypothesis, only 80 public users were used, to avoid a probable bias towards higher concern of environmental variables of interior architecture students. Besides, to prevent a bias depending on age differences within the public user group, for the purpose of comparison, 40 interior architecture students were analyzed with 40 public users, who are in the same age group with the students (18-30) to test the third hypothesis.

A four page self-administrative questionnaire was given to each subject, which consisted of four parts. The first part aimed to determine the user profile with personal information like age, sex, education, etc. and to examine the time spent and frequency of mall visits. The next part asked the main purpose to visit the mall and the performed activities in their mall visit to be selected from the given list of 17 sentences, describing various activity patterns that take place in Karum. The next part comprises of open-ended questions to learn their purpose of choosing Karum to perform these activities, their environmental preferences, and whether the choice of shopping mall as a leisure site is influenced by environmental preferences. The last part includes 36 pair of bipolar adjectives, to be selected as appropriate to define Karum, to evaluate how users and

interior architecture students perceive the mall (see Appendix A for the questionnaire form).

First open-ended questions were asked to obtain the personal responses to prevent the influence of a given list of adjectives on the subjects, then adjectives were given to see their choices. The first groups of questions serve to appraise the major purpose of mall visit, environmental concerns and preferences; the adjective pairs further assess the mall environment, which can be used for the design of shopping malls. Collected data, is utilized to present frequencies (see Tables 7.1 and 7.2 in Appendix B for the first three parts of the questionnaire, between questions 1-15 and Table 7.3 in Appendix C for the last part including question 16 - the adjective list) and analyzed through chi-square to test the validity of the hypotheses.

#### **4.3 EVALUATION OF THE RESULTS**

The responses of 160 subjects are utilized in two groups as public users and interior architecture students. The results are evaluated according to the purpose of mall visit and the performed activities within, and the reasons of mall choice for these activities, environmental preferences, and various concerns.

When the responses of the public users to the first part of the questionnaire is evaluated, results indicate that 42,5% of the total group of public users spent less than 1 hour, another 42,5% stayed between 1 and 2 hours, while 5,0% stayed between 2 and 3 hours, and 10,0% stayed more than 3 hours. There is no subject who reported that this is his/her first visit to the mall, which showed that all of the subjects were more or less familiar to

the site (see question 6 in Appendix A). While 42,5% of the public users reported that they visit the mall 1 to 3 times a month, 41,3% visited 1 to 3 times a week, 5,0% visited more than 3 times a week, and 11,3% of them reported that they visit the mall everyday. Besides, no subject visiting the mall more than once everyday was seen (see question 7 in Appendix A).

Main purpose of their mall visit was asked to the subjects to see whether they performed other activities besides their main purpose or left the mall after fulfilling it (see question 8 in Appendix A). 38,0% of the public users reported shopping, 46,3% leisure and 15,0% both as their main purpose to visit the mall. When the performed activities in their mall visit are asked to the public users (see question 9 in appendix A), it is seen that window-shopping (63,8%); eating or drinking (55,0%); exploration (52,5%); having planned (36,3%) and unplanned (22,5%) purchases; browsing (33,8%); purchase of food (17,5%); meeting (17,5%) and socializing (17,5%) with friends or family members, consequently, were reported as the most preferred activities. Talking with other shoppers (3,8%), visiting the bank (6,3%), the WC (8,8%), and having a haircut (2,5%) were the ones that are less performed.

As interior architecture education does not affect the performed activities in a mall visit, interior architecture students reflected similar results in their purpose of mall visit and performed activities within as expected, besides time spent and frequency of use. It is reported that 31,3% of the interior architecture students spent less than an hour, 50,0% of them spent between 1 and 2 hours, 18,8% spent between 2 and 3 hours, and 2,5% spent more than 3 hours in their mall visit. Interior architecture students also reported a

similar range to the public subjects in their frequency of visit. The majority of the group visited the mall 1 to 3 times a month (72,5%) and 1 to 3 times a week (25,0%), while only 2,5% of the group visited the mall more than 3 times a week or everyday.

Main purpose of the interior architecture students to visit the mall appeared as shopping (57,5%) and the remaining purposes equally dispersed to leisure (21,3%) and to both (21,3%). Window-shopping (81,3%); having planned (57,5%) and unplanned (36,3%) purchases; exploration (53,8%); eating or drinking (51,3%); browsing (31,3%); socializing (30,0%) and meeting (17,5%) with friends or family members; visiting the WC (26,3%), purchase of food (10,0%); and visiting the bank (10,0%), consequently, were reported as the most preferred activities. Talking with other shoppers (1,3%), and having a haircut (5,0%) were the ones that are less performed.

The purpose of mall visit and the performed activities within showed similarity between public users and interior architecture students, which can be seen in detail in Table 4.1.

		PURPOSE OF MALL VISIT			PERFORMED ACTIVITIES IN THE MALL VISIT													
		S	L	S+L	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Public	F	19	16	5	13	20	11	30	20	9	22	3	10	2	1	0	0	4
	M	12	21	7	14	9	7	21	24	5	20	11	4	1	4	2	0	3
	T	31	37	12	27	29	18	51	44	14	42	14	14	3	5	2	0	7
I. A. St.	F	26	6	8	12	26	14	33	17	4	19	8	10	1	6	0	1	7
	M	20	11	9	13	20	15	32	24	4	24	6	14	0	2	4	2	14
	T	46	17	17	25	46	29	65	41	8	43	14	24	1	8	4	3	21

**Table 4.1** The Purpose of the mall visit and the performed activities within by public users and interior architecture students.

\*Activities presented in the table by numbers can be seen in questionnaire in Appendix A.



When public users and interior architecture students are evaluated as a whole, it is seen that 46,3% of the subjects - constituting the majority, spent between 1 and 2 hours, and 36,9% spent less than an hour. Besides, the majority of the subjects (57,5%) reported that they visit the mall 1 to 3 times a month, while 33,1% reported as 1 to 3 times a week. It is seen that 48,1% of the users reported shopping, 33,8% reported leisure and 18,1% reported both as their purpose of mall visit.

Although the major purpose of mall visit is seen as shopping, only 5 out of 77 subjects (6,5%) – with main purpose shopping, had a purchase and left the mall. 57 out of 77 subjects (74,0%) performed also leisure activities, alongside their main purpose – shopping. 15 out of 77 (19,5%) subjects who aimed shopping before visiting the mall, even performed only leisure activities in their visit. 54 subjects aimed to have leisure before coming to the mall; while half of them (27; 50,0%) performed only leisure activities, the other half (27; 50,0%) performed both leisure and made purchases. 29 subjects reported that their main purpose to visit the mall was both leisure and shopping. 25 out of 29 subjects (86,2%) performed both as expected, while 4 of the subjects (13,8%) performed only the leisure activities. Leisure had been reported as the major purpose of the mall visit by 54 of the subjects (33,8%) and as one of the purposes by 29 of them (18,1%), and it was performed by 155 of the subjects (96,9%) in their mall visit.

The above discussion is analyzed to test the first hypothesis “Leisure is the dominant activity in the shopping mall, independent of the purpose of mall visit” (see Table 4.2). Chi-square result ( $\chi^2 = 22,76$   $df=4$ ) shows that whatever the purpose of mall visit is,

leisure is the major activity, and verifies the first hypothesis with 99,5% significance (see Appendix D, Table 7.4 for the statistical analysis).

		NUMBER OF PERFORMED ACTIVITIES IN THE MALL VISIT			
		Shopping	Leisure	S+L	Total
PURPOSE	Shopping	5	15	57	77
OF MALL VISIT	Leisure	0	27	27	54
	S+L	0	4	25	29
	Total	5	46	109	160

**Table 4.2.** The relationship of the purpose of mall visit and the performed activities in the mall visit.

When the reason of choosing Karum to perform these activities were asked (see question 10 in Appendix A), 111 subjects out of 160 reported personal reasons, like proximity, variety and number of stores (69,4%); 66 out of 160 reported environmental reasons such as the spaciousness, legibility of the environment, friendly atmosphere (41,3%); and 22 out of 160 reported social reasons including social interaction and user group (13,8%).

The reasons of mall choice displayed the same order within the two groups – public users and interior architecture students, as personal, environmental and social. While 65,0% of public users stated personal reasons, 50,0% stated environmental reasons; 73,8% of students reported personal, and 32,5% reported environmental reasons. Despite the differences between the percentages in personal and environmental reasons, 13,8% of both groups stated social reasons behind their mall choice. The reasons of mall choice can be seen in Table 4.3.

	NUMBER OF RESPONSES TO THE PURPOSE OF MALL CHOICE			
	Personal	Social	Environmental	Total
Public Users	52	11	40	103
Int. Arc. St.	59	11	26	96
Total	111	22	66	199

**Table 4.3** The Reasons of mall choice among public users and interior architecture students.

When other open-ended questions were asked (see questions 10-15 in Appendix A) to understand subjects main concerns, it was seen that 146 out of 160 subjects expressed environmental (91,3%), 130 subjects out of 160 expressed personal (81,3%), and 36 out of 160 expressed social (22,5%) concerns in their mall visit. The order of concern is the same within the two groups as environmental, personal, and social. It is seen that, although dominant reason of mall choice appears to be the personal reasons (69,4%); 91, 3,0% of the subjects displayed also an environmental concern, indicating the importance of environmental features after the mall choice has been made. The concerns of public users and interior architecture students can be seen in detail in Table 4.4.

	NUMBER OF RESPONSES TO CONCERNS			Total
	Personal	Social	Environmental	
Public Users	66	16	71	153
Int. Arc. St.	64	20	75	159
Total	130	36	146	312

**Table 4.4** The concerns of public users and interior architecture students in the mall visit.

When the reasons of mall choice were evaluated, it was seen that there was a strong relationship between the stated purposes of mall visit and the reasons of mall choice. While the purpose of mall visits were grouped as shopping, leisure, and both; the

reasons of mall visits were grouped as proximity, variety and number of stores, user group, and environmental preferences through the responses to open-ended questions. To avoid a probable bias towards higher concern of spatial features of interior architecture students, only the responses of 80 public users were evaluated to test the second hypothesis.

It was seen that among 80 subjects, 43 responses with different reasons of mall choice, were reported with the purpose of mall visit as shopping, 49 as leisure, and 18 as both. 13 subjects out of 43 aiming shopping to visit Karum, reported that they choose the mall for its proximity to where they live or work (30,2%), 21 out of 43 aiming shopping, reported variety and number of stores (48,8%) as the reason for their choice; while only 1 subject stated the reason of approving the user group (2,3%) and 8 subjects out of 43 stated environmental preferences (18,6%) for choosing Karum to shop. Among 49 subjects aiming to have leisure in their mall visit, 27 subjects stated environmental preferences (55,1%) for their choice of Karum, while only 7 out of 49 stated proximity (14,3%), 9 out of 49 stated variety and number of stores (18,4%), and 6 out of 49 stated user group (12,2%) as the reason behind their mall choice as a leisure site. Among 18 subjects aiming to have both shopping and leisure, there is a more homogeneous distribution towards the reasons of proximity by 5 subjects (27,8%), and variety and number of stores by 4 subjects (22,2%), whereas user group by 1 subject (5,6%) and environmental preferences by 8 subjects (44,4%) took place at the two extremes.

It is seen that the purpose of shopping is mainly associated with the reasons of proximity (48,8%) and variety and number of stores (30,2%), while the purpose of leisure is

mainly associated with environmental preferences (55,1%) for the mall visit. Besides, the subjects aiming both shopping and leisure also mainly associate their choice with environmental preferences (44,4%), which shows that whenever leisure becomes the goal environmental preferences becomes the major concern (see Table 4.5). The above discussion is analyzed to test the second hypothesis “The choice of a shopping mall as a leisure site is influenced by environmental preferences”. Chi-square result ( $\chi^2 = 22,81$   $df=6$ ), which shows that environmental preferences are the major factor affecting the choice of a shopping mall as a leisure site, verifies the second hypothesis with 99,5% of significance (see Appendix D, Table 7.5 for the statistical analysis).

PURPOSE OF MALL VISIT	NUMBER OF RESPONSES TO THE REASON OF MALL CHOICE				
	Proximity	Variety & Number of Stores	User Group	Environmental Preferences	Total
Shopping	13	21	1	8	43
Leisure	7	9	6	27	49
S + L	5	4	1	8	18
Total	25	34	8	43	110

**Table 4.5** The Reason of mall choice against the purpose of mall visit.

Throughout the analyses presented below, comparing interior architecture students and public users to prevent the probable bias depending on the age differences between the public users, the group of public users between ages 18-30 (40 subjects) were analyzed with the 40 of the interior architecture students who are in the same age range.

When preferences to spend more time and/or more pleasurable time in Karum were asked (see question 12 in Appendix A), 48,9% of the subjects (57,5% of public users and 40,0% of interior architecture students) reported that they prefer to have more

leisure spaces including café (32,5% of interior architecture students and 20,0% of public users), seating spaces (12,5% of interior architecture students and 10,0% of public users), and cinema (12,5% of interior architecture students and 5% of public users), emphasizing the supportive role of leisure in mall environments.

Public users and interior architecture students shared their preferences for a bigger, and less crowded space, with a more lively and enjoyable atmosphere, with the introduction of music. While 4 subjects from each groups (10,0% from each) preferred a bigger space, 2 public users (5,0%) and 10 interior architecture students (25,0%) preferred a less crowded space. Among 40 public users 4 preferred a more lively (10,0%) and 4 preferred a more enjoyable atmosphere. The preferences for a more lively and enjoyable atmosphere among 40 interior architecture students were similar to the public users' (6 subjects, 15,0% to each). While the majority preferred to have a more lively and enjoyable atmosphere for leisure in the shopping mall, a few subjects reported that they prefer a more relaxing (5,0% of public users), more quiet (5,0% of interior architecture students), and more intimate (2,5% of interior architecture students) space. Introduction of music is another preference, which the both groups shared. While 5 public users (12,5%) reported preferences for music, 3 interior architecture students (7,5%) did. Another preference that the both groups indicated is contact with outside and nature (including plants and water), despite the 4 interior architecture students (10,0%), only 1 public user (2,5%) reported a preference for contact with outside and nature.

Besides the shared preferences, only interior architecture students indicated preferences for a more original (10,0%), mysterious (12,5%), and complex (7,5%) space; that has a

better circulation (20,0%) and HVAC (7,5%). While 15,0% of the interior architecture students indicated that they prefer a more spacious space at the second row of corridors, 2,5 % reported that they prefer a more unified space. Despite the majority preferring a bigger space, 7,5% of the interior architecture students reported that they prefer a smaller space, that is more in human scale.

The environmental preferences of the subjects to spend more time and/or more pleasurable time in Karum can be seen in detail in Table 4.6 below.

ENVIRONMENTAL PREFERENCES	Public Users	Interior Architecture Students	Total
More café	13	10	23
More seating space	5	4	9
Cinema	5	2	7
Bigger space	4	4	8
Less crowded space	2	10	12
More lively	4	6	10
More enjoyable	4	6	10
More colorful	2	4	6
More relaxing	2	0	2
More quiet	0	2	2
More intimate	0	1	1
More orderly	1	1	2
More legible	2	7	9
More unity	0	1	1
Better circulation	0	8	8
Introduction of music	5	3	8
Contact with nature	1	4	5
More complex	0	3	3
More mysterious	0	5	5
More original	0	4	4
More Spacious (back)	0	6	6
Better HVAC	0	3	3
Smaller space	0	3	3
<b>Total</b>	<b>50</b>	<b>97</b>	<b>147</b>

**Table 4.6** Environmental Preferences to spend more time and/or more pleasurable time in Karum.

Besides the above-mentioned differences in their preferences, the way they experience mall environment and their concerns within, exhibits differences between public users and interior architecture students too. As mentioned earlier, the responses of 40 interior architecture students and 40 public users of ages between 18-30 towards the open-ended questions are analyzed first – constituting their approach and statement, and then checked with the adjective list – reflecting their choices within a given list. Their aesthetic experience and environmental concern were grouped into two as formal – constituting the physical variables of the environment, and symbolic – constituting the impressions of the physical variables and their associated meanings. Formal expressions of environment included the physical variables of the mall environment like its color, form, light, size, order, smell, sound, temperature, crowding, etc. Symbolic expressions of environment included the collective impressions and meanings, which could also be a result of one or more of the physical variables of the mall environment. The expressions like colorful, luminous, orderly, etc. were analyzed as formal; and the impressions of spaciousness, friendliness, comfort, etc. were evaluated as symbolic aspects of the environment.

Among the 54 environmental concerns of public users, 14 were related to the formal aspects of the environmental variables (25,9%), and 40 were of symbolic aspects (74,1%); whereas among the 53 environmental concerns stated by interior architecture students, 22 were to the formal aspects (41,5%) and 31 were to the symbolic aspects (58,5%) of the environmental variables. The difference between the environmental concern of the two groups is that while the majority of the public subjects concerned the symbolic aspects (74,1%) of the space – the impressions and meanings that the space



make them feel more, the interior architecture students concerned the two aspects nearly equal. The differences in aesthetic experience and environmental concern can be seen in detail in Table 4.7. These data were used to test the third hypothesis “Interior architectural education is a significant factor affecting the aesthetic experience and environmental concern for leisure in a shopping mall” and the results of the chi-square test ( $\chi^2 = 2,92$   $df=1$ ) can be seen in Appendix D, Table 7.6 The analysis supports the second hypothesis with 90% significance.

	NUMBER OF RESPONSES TO ENVIRONMENTAL CONCERN (ACCORDING TO OPEN-ENDED QUEST.)		
	Formal	Symbolic	Total
Public Users	14	40	54
Int. Arc. St.	22	31	53
Total	36	71	107

**Table 4.7** The Aesthetic Experience and Environmental Concern of Public Users and Interior Architecture Students.

When the responses to the adjective list were compared with the open-ended questions’, results appeared to be supportive. The results showed that public subjects pointed out 129 adjectives describing the formal aspects of the environment (44,2%), and pointed out 163 adjectives describing the symbolic aspects of the environment (55,8%), out of 292; whereas interior architecture students pointed out 167 formal adjectives (47,1%), and 178 symbolic adjectives (52,9%) out of 345. Similar to the results of open-ended questions, the results of the adjective list supports the difference between the two groups in the concern for the formal aspects of the environment. Although appears to be less stronger, the results can be seen in Table 4.8.

	NUMBER OF RESPONSES TO ENVIRONMENTAL CONCERN (ACCORDING TO ADJECTIVE LIST)		
	Formal	Symbolic	Total
Public Users	129	163	292
Int. Arc. St.	167	178	345
Total	296	341	637

**Table 4.8** The environmental concern of public users and interior architecture students according to the adjective list.

With the evaluation of open-ended questions and adjective lists, it is seen that the concern for formal aspects of the environment displayed similarities in the major variables and differences in their amount and priority order between the two groups of subjects. Despite the higher percentages of concern for formal aspects of environment by interior architecture students, the majority of public users and interior architecture students expressed major concern in size, light and order evaluating the environment. According to the open-ended questions, public users consequently concerned for size (25,8%), light (22,6%), order (16,1%), acoustics (16,1%), form (9,7%), thermal comfort (6,5%), and color (3,2%); while interior architecture students consequently concerned for size (32,8%), order (18,8%), light (17,1%), form (10,9%), thermal comfort (10,9%), color (4,7%) and acoustics (4,7%). Concern for the formal aspects of the environment, according to the open-ended questions can be seen in detail in Table 4.9.

	NUMBER OF RESPONSES TO FORMAL ASPECTS OF ENVIRONMENT (ACCORDING TO OPEN-ENDED QUESTIONS)							
	Color	Form	Light	Size	Order	Thermal Comfort	Acoustics	Total
Public Users	1	3	7	8	5	2	5	31
Int. Arch. St.	3	7	11	21	12	7	3	64
Total	4	10	18	29	17	9	8	95

**Table 4.9** The Concerns for the formal aspects of environment according to the open-ended questions.

According to the responses to the adjective list (see question 16 in Appendix A), the major concerns in the environment were similar across order (27,1%), light (22,9%), and size (23,4%), but their order appeared as order, light, and size.

When the 36 bipolar adjective pairs were analyzed for public users and interior architecture students (40 subjects from each group, between ages 18-30), it is seen that the two groups shared the adjectives that they responded higher evaluating Karum as clean (30,0% of public users and 27,5% of students), spacious (22,5% of public users and 26,3% of students), contemporary (25,0% of public users and 20,0% of students), having ease of access (16,3% of public users and 26,3% of students), high quality (21,3% of public users and 20,0% of students), luminous (17,5% of public users and 21,5% of students), having adequate lighting (16,3% of public users and 21,3% of students), carrying a variety of brands (16,3% of public users and 21,3% of students), expensive (16,3% of public users and 17,5% of students), tidy (20,0% of public users and 12,5% of students), having a variety of stores (13,8% of public users and 17,5% of students), hot (15,0% of public users and 16,3% of students), near (15,0% of public users and 15,0% of students), orderly (16,3% of public users and 11,3% of students) in fashion (13,8% of public users and 13,8% of students), and safe (8,8% of public users and 16,3% of students).

Another adjective that is responded with a high percentage is the beauty of Karum.

While 16,3 % of the public users evaluated Karum as beautiful, a lower percentage of interior architecture students (11,2%) shared the evaluation. There were also adjective pairs, where the both opposite ends of the pair were responded by the same group. One

of these is the brightness-dullness of the space, while 26,9% of the subjects evaluated the space as bright, 16,3% evaluated as dull.

There are also interesting responses, which appeared to be were very consistent within the two groups, while they were towards the opposite ends of the adjective pair between the two groups. While 42,5% of the public users evaluated Karum as relaxing and 6,2% as tiring, 35,0% of interior architecture students evaluated the space as tiring, and 10,0% evaluated as relaxing. Similarly, while 17,5% of public users evaluated the ventilation as good and 6,2% as poor, 20,0% of the interior architecture students evaluated it as poor, and 10,0% as good. Another aspect that the two groups disagree is the dominant colors of the space. While 18,8% of public users evaluated Karum as having bright colors and 5% as having muted colors; 17,5% of interior architecture students evaluated Karum as having muted colors, and 6,2% as having bright colors.

There are also adjectives that are responded with a high percentage by one of the groups and a significantly low percentage by the other. Three significant adjectives are crowding, complexity, and legibility; Karum is evaluated as crowded (31,3%), complex (31,3%) and legible (27,5%) by the interior architecture students, whereas only a few public users (12,5%, 5,0%, and 8,9% respectively) used the same adjectives in their evaluation. In contrast, 26,3% of public users evaluated the space as enjoyable, while only 12,0% of interior architecture students used this adjective.

Besides, public subjects were more consistent in the adjective pair they pointed out, compared to the interior architecture students, who showed more inconsistent responses

inside the group. The only aspect that public users were not consistent is the size of the mall; while 21,3% evaluated Karum as big, 16,3% evaluated the space as small. The responses to the adjective list can be seen in detail in Table 7.3 in Appendix C.

The last factor analyzed is the use of Internet for shopping purposes now and its probable use in the future (see questions 14 and 15 in Appendix A). Although the use of Internet is not directly related with this study, information about is collected as its frequency of use may bring the discussions about the social and environmental factors. It is seen from the results that the majority of the subjects (84,4%) have not been using Internet for shopping purposes up today. When they are asked whether they would prefer to make purchase through Internet in the future, 57 subjects (36,6%) stated that they would prefer, and 6 (3,8%) indicated that they are not sure, while 97 subjects (60,6%) stated that they would not prefer to use Internet. The percentages are quite similar in both groups – public users and interior architecture students. The 60,0% of the subjects that did not prefer to use Internet for commercial purposes for a variety of reasons. 76,0% of the group indicated the lack of exploration in Internet as the major reason, expressing the need of seeing, and touching before making a purchase, besides seeing and being seen by others. The other factors consequently are the lack of entertainment (23,7%), social interaction (13,4%) in Internet, and the difficulties in purchase of a variety of goods - including clothes and food (10,3%). The remaining 5,1% expressed their lack of familiarity with Internet and safety factors. The responses can be seen in detail in Table 4.10.

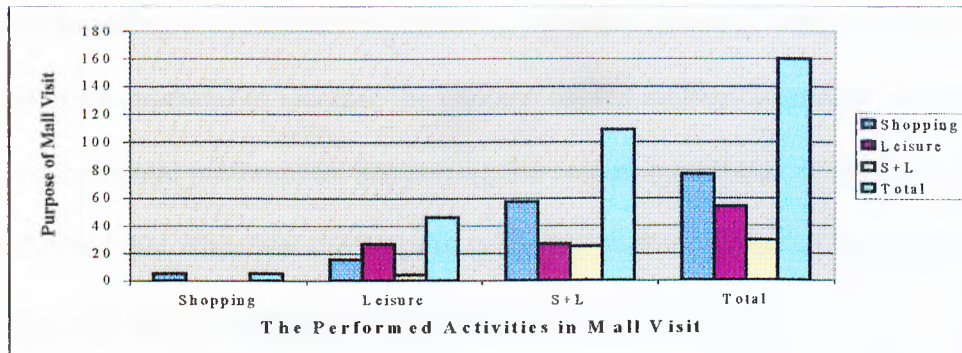
	USE OF INTERNET						
	Now		Total	Future			Total
	Yes	No		Yes	No	Not Sure	
Public Users	14	66	80	25	51	4	80
Int. Arch. St.	11	69	80	32	46	2	80
Total	25	135	160	57	97	6	160

**Table 4.10** The use of Internet among public users and interior architecture students.

The results further emphasize the important role of leisure by its explorative, entertaining and socializing qualities in mall environments and supports the significance of environmental preferences, in the choice of shopping mall as a site for leisure as well as shopping.

#### **4.4 DISCUSSION**

The evaluation of the results, showed that shopping mall penetrated our public life, beside its significance in commercial life. The results also indicate that approximately half of the users visited the mall with the major purpose of leisure, including both leisure and shopping. The other half, who visited the mall only with commercial purposes, also performed leisure activities, along their main purpose - shopping. Even some of the users aiming shopping before visiting the mall, performed only leisure activities throughout their visit. It is an interesting result that independent of the purpose of mall visit, leisure is the dominant activity during the mall visit, which shows the significance of the shopping mall as a leisure site to socialize, see and be seen, and browse without necessarily making purchases (See Figure 4.4).

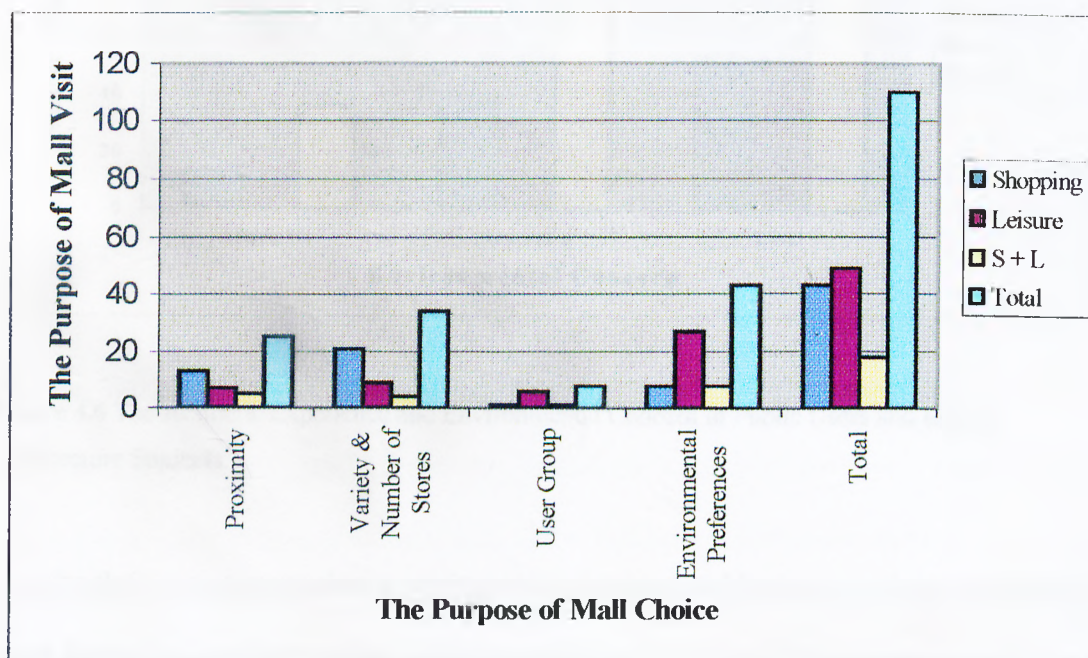


**Figure 4.4** The relationship of the purpose of mall visit and the performed activities in the mall visit.

While the results support the use of shopping mall as a leisure site, it also emphasizes the significant influence of environmental preferences in the choice of a shopping mall as a leisure site. It is interesting that the major purpose of mall choice appeared to be of personal factors like proximity and variety and number of stores, whereas nearly all of the users indicated the importance of environmental preferences, when their choice of Karum is investigated among the other malls in similar characteristics in number and variety of stores and proximity.

There also appeared to be a significant relationship between the purpose of mall visit and the reason of mall choice. The users visiting the mall with only the purpose of shopping, associated their reason of mall choice with personal factors, mainly with proximity and variety and number of stores; while the ones visiting the mall with the purpose of leisure, indicated their reason of mall choice as environmental preferences. The reason behind the results can be based on Heath's (1992) assumption about the objectives that is already mentioned. Shopping, especially planned purchases, as an

*instrumental* (specific) objective appeared to be affected from the environment at a level just providing the achievement of activity. On the contrary, leisure, as a *diversive* objective appeared to increase the concern for the mall environment, and consequently environmental preferences. Supporting the second hypothesis of the study, the results indicated that whenever the purpose is leisure, mall environment becomes the most important factor affecting the choice (See Figure 4.5 below).

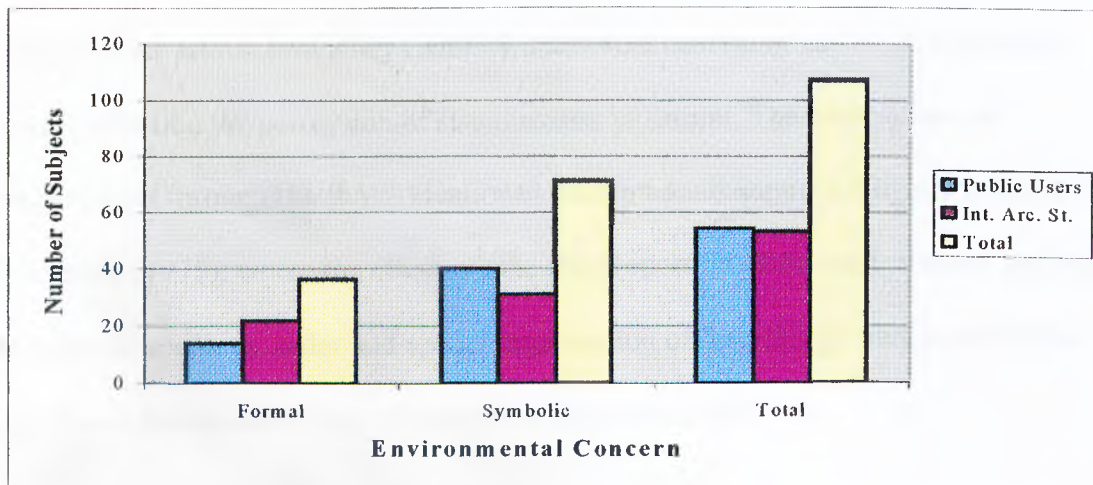


**Figure 4.5** The Reason of mall choice against the purpose of mall visit.

The results also indicated significant differences between interior architecture students and public users in their aesthetic experience and concerns in the mall environmental. Interior architecture students were concerned with the formal aspects of environment including the physical variables of the mall environment, which can be as a result of their education, based on the combinations of environmental variables. On the other



hand, public users were mainly concerned for the symbolic aspects of environment, including the impressions and associated meanings of the physical variables, which can be as a result of their perception of the combinational affects of the variables or evaluation of the space as a whole (See Figure 4.6).



**Figure 4.6** The Aesthetic Experience and Environmental Concern of Public Users and Interior Architecture Students.

Despite their way to experience environment, interior architecture students and public users shared the majority of the adjectives that they responded dominantly to evaluate the environment. Both groups perceived the space as clean, spacious, contemporary, high-quality, luminous, having adequate lighting, expensive, tidy, and in fashion. Through the evaluation of the responses to the adjective pairs, there appeared to be relationships between some of the adjectives. It is seen that spaciousness is mainly associated with luminosity, brightness, color, and size of the environment.

Among 39 (48,1%) subjects that perceived Karum as spacious, 25 also perceived the environment as luminous, 21 as having adequate lighting, 16 as big in size, 15 as bright, 7 as having bright and 5 as having muted colors. While daylight penetrating through the atrium, and its reflectance from the bright and light colored surfaces affects the perception of luminosity; the provided width and height by the gallery and the glass surface of the atrium providing visibility and visual continuity can be of significant factors affecting the perception of spaciousness in Karum. The associations of spaciousness through the above mentioned perceptions is supported by the study of İmamoğlu (1975), where the effect of size and proportion of the environment, position and size of openings, order and spatial organization of furnishings were examined as significant factors affecting the perception of spaciousness.

Another interesting result is that among 35 subjects (43,8%) that perceived Karum as contemporary, 19 evaluated the space as fashionable too. This association can be a result of the association of shopping mall with the meanings of new and contemporary reflecting the new needs, and demands in the society and besides the style, mall image and use of materials like glass and metal reflect the new technology.

The results indicate that one of the physical variables that the subjects disagree on its evaluation is the colors in Karum. While public users perceived the mall environment as having bright colors, the majority of the interior architecture students perceived it as having muted colors. Despite the dominant color scheme of white, cream, tints and shades of beige, and gray, and the absence of high-saturated hues in environment, public users perception of bright colors, can be due to their association of color with the bright

environment or it can be a result of the inconsistencies in defining and naming colors. Another interesting response is towards the size of the space. While half of the subjects, evaluated the size of the mall as large, the other half indicated that it is a small environment. This inconsistency shows the tentative character of sizes in the environment, which can be a result of different comparisons that each subject made, depending on personal variables like expectations, past experiences, personality, etc.

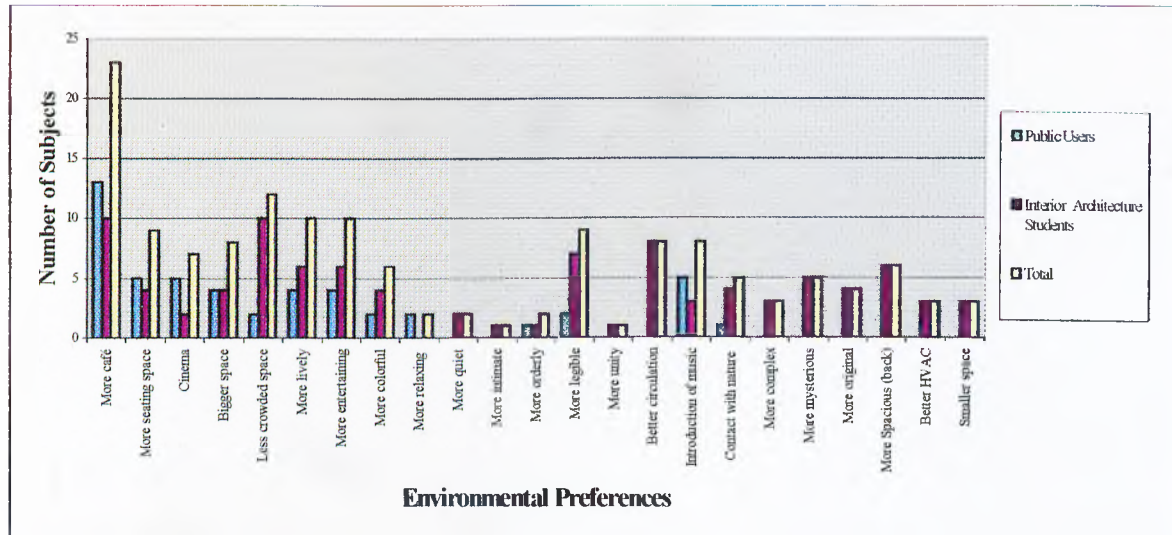
Beside the above-mentioned results, it is seen that some of the adjective pairs that were frequently used by the interior architecture students were rarely used by public users in their assessment. The most significant ones are complexity and legibility. 25% of the interior architecture students perceived the space as legible, despite the 7,5% of public users using the same adjective to evaluate the space. The lower response of public users to these adjectives can be a result of their unfamiliarity to the terminology. Perceived legibility in Karum can be a result of the building configuration, the balance between uniformity and complexity in the mall environment, besides the visual accessibility throughout the gallery and unique character of specific features like the spiral staircase in the mall environment. The study by Doğu (1997), examining the influence of building configuration, complexity, uniformity, visual accessibility, distinctions, landmarks, and signage on legibility and way-finding, supports the above mentioned assumptions.

Following the above discussion, it is seen that while some of the adjectives were frequently used by the subjects, some are rarely used by several reasons like unfamiliarity to the terminology, difficulty in understanding, and the close meanings of some in Turkish language. In this context, the easily understood and frequently used

adjectives in this study may also contribute to the development of environmental descriptors in Turkish language. These mentioned adjective pairs can be seen as marked in the questionnaire form on page 112 in Appendix A.

When their preferences to spend more time / more pleasurable time is asked, interior architecture students and public users shared several preferences for the mall environment. Majority of the subjects reported that they prefer to have more leisure spaces including café, seating spaces, and cinema to spend more time/more pleasurable time in Karum, emphasizing the supportive role of leisure in mall environments. Besides, the majority of the subjects displayed the preferences for a bigger and less crowded environment, with the introduction of music and contact with outside and nature.

While a very small part of the subjects indicated that they prefer a more relaxing, quiet, and intimate atmosphere; the majority indicated that they prefer a more lively and enjoyable environment with the introduction of brighter colors in the mall environment. Music is another popular preference among the subjects. The results indicate the association of leisure with liveliness, joy, activity, and dynamism of music and display significance of environmental preferences for leisure in the mall environment (See Figure 4.7).



**Figure 4.7** Environmental Preferences to spend more time and/or more pleasurable time in Karum.

Despite the high responses to the perceived spaciousness and legibility in the mall environment, a large amount of subjects indicated the incoherence between the gallery space and the second row of corridors at the back and preferred to have more spaciousness and legibility especially at these corridors. This incoherence of luminosity, and hence spaciousness can be a result of the insufficiency of daylight penetration to the adjacent spaces through the atrium well, which is indicated as one of the major requirements in atria by Özdamar (1998). Besides, the legibility problem in these corridors can be as a result of the excessive level of uniformity through the corridors and displays. The incoherence with the atrium well, and the spaciousness problem of these corridors can be solved by increasing the illumination level, changing the lighting type, and increasing the reflectivity of surfaces, while legibility problem can be solved by

supplying distinctions in these corridors, by changing colors, materials, lighting system, etc. to provide the differentiation of each among the other corridors.

## 5. CONCLUSION

In this study, the concept of leisure is studied and the shopping mall is examined as a leisure site being the center of today's public life. While exploring the supportive role of leisure in the shopping mall, a field research is carried out to examine environmental preferences as an important factor supporting the choice of the shopping mall for leisure.

The results of the research indicate that the commercial benefits of the shopping mall are outstripped by its symbolic and social values as a leisure site. It is seen that approximately half of the users visited the mall with the major purpose of leisure or both leisure and shopping. Although the other half visited the mall only with commercial purposes, they also performed leisure activities, along their main purpose - shopping. Even some of the users aiming shopping before visiting the mall, performed only leisure activities throughout their visit. Besides, more than half of the users visiting the mall for leisure reported that they also made unplanned purchases. While supporting the first hypothesis of the study, the result displays the significance of shopping mall as a leisure site to socialize, see and be seen, and browse and the supportive role of leisure in a shopping mall by increasing the time spent, frequency of use and dependently impulse purchases.

The results emphasize the significant influence of environmental preferences in the choice of a shopping mall as a leisure site. While personal factors like proximity and variety and number of stores appeared to be an important concern in mall choice, environmental preferences are reported to be the reason of mall choice by more than one

third of the users. Although the major reason appeared to be of personal ones, nearly all of the users indicated the importance of environmental preferences when their choice of Karum is investigated among the other malls with similar characteristics in variety of stores and proximity.

There also appeared to be a significant relationship between the purpose of the mall visit and the reason of mall choice. The users visiting the mall with only the purpose of shopping, associated their reason of mall choice with personal factors, mainly with proximity and variety and number of stores; while the ones visiting the mall with the purpose of leisure, indicated their reason of mall choice as environmental preferences. Supporting the second hypothesis of the study, the results indicated that whenever the purpose is leisure, mall environment appears to be the most important factor affecting the choice.

The results also indicated differences between interior architecture students (who will create spaces) and public users (whom the spaces are created for) in their aesthetic experience and environmental concern. While interior architecture students were concerned with the physical variables of the mall environment (formal aspects of environment) more, public users were mainly concerned for the impressions and associated meanings of the physical variables (symbolic aspects of environment).

Despite the differences in the way they experience and concern environments, the results indicate that the two groups share some aspects in their perception of the environment as clean, spacious, contemporary, high-quality, luminous, having adequate lighting,



expensive, tidy, and in fashion. The different perceptions appeared in some variables like color and size. The results also indicated several common preferences to spend more time / more pleasurable time in the mall. Evaluation of these results indicate that subjects preferred to have a bigger, less crowded, more colorful environment with a more lively and enjoyable atmosphere for leisure in a shopping mall.

Despite the differences in their perception and aesthetic experience, the common aspects in environmental preferences between public users and interior architecture students show the clues for the design of shopping malls. It is obvious that the customer-oriented shopping mall design requires extensive research on different needs, activity patterns, and demands of mall users, besides their concerns and preferences on the physical variables of the mall environment, as indicated by this study. Besides, the most important among all activities and requirements seems to be the leisure-oriented ones, which may also dominate the future and design of shopping malls.

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## **7. APPENDICES**

## APPENDIX A

### SORU FORMU (GENEL KULLANICILAR)

NO:  
TARİH:

**1. Cinsiyet: (1)**

- ☐ Kadın (1)  
☐ Erkek (2)

**2. Yaş: (2)**

- 18-30 (1)  
30-60 (2)

**3. Eğitim Seviyeniz: (3)**

- ☐ İlkokul Mezunu (1)  
☐ Lise Mezunu (2)  
☐ Üniversite Mezunu ..... (Lütfen bölümünüzü belirtiniz) (3)

**4. Hangi semtte oturuyorsunuz?**

**5. Alışveriş Merkezinde yalnız mıydınız? (4)**

- ☐ Evet (1)  
☐ Hayır ..... (Lütfen kaç kişi olduğunuzu belirtiniz) (2)

**6. Alışveriş merkezinde yaklaşık ne kadar vakit geçirdiniz? (5)**

- ☐ 1 saatten az (1) ☐ 2-3 saat arası (3)  
☐ 1-2 saat arası (2) ☐ 3 saatten fazla (4)

**7. Alışveriş merkezini ne sıklıkta ziyaret ediyorsunuz? (6)**

- |   |  |
|---|--|
| <input type="checkbox"/> İlk kez (1)          | <input type="checkbox"/> Haftada 3 den fazla (4) |
| <input type="checkbox"/> Ayda 1-3 defa (2)    | <input type="checkbox"/> Hergün (5)              |
| <input type="checkbox"/> Haftada 1-3 defa (3) | <input type="checkbox"/> Günde 1'den fazla (6)   |

**8. Karuma gitmekteki temel amacınız neydi?**

**9. Karumda hangi aktiviteleri gerçekleştirdiniz?**

- (1) Alışveriş yapmayı planlamadan dolaşım. ☐
- (2) Önceden planladığım bir alışveriş yaptım. ☐
- (3) Önceden planlamadığım bir alışveriş yaptım. ☐
- (4) Vitrinlere baktım. ☐
- (5) Yemek yedim ve / veya birşeyler içtim. ☐
- (6) Yiyecek birşeyler aldım. ☐
- (7) Yeni neler var diye bakındım. ☐
- (8) Ailemle / arkadaşlarımla buluştum. ☐
- (9) Arkadaşlarımla / tanıdıklarımla karşılaştım ve / veya vakit geçirdim. ☐
- (10) Alışveriş yapanlarla sohbet ettim. ☐
- (11) Bankaya gittim. ☐
- (12) Kuaföre / berbere gittim. ☐
- (13) Terziye gittim. ☐
- (14) WC'ye gittim. ☐

**10. Bu aktiviteleri gerçekleřtirmek için neden Karumu tercih ettiniz?**

**11. Alisveris merkezinin mekanı / ortamı hakkında ne düşünöyorsunuz?**

**12. Burada daha fazla yada iyi vakit geçirmek için nasıl bir mekan / ortam olmasını isterdiniz?**

**13. Buradan başka hangi alışveriş merkezlerine gidiyorsunuz? Neden?**

**14. İnternet aracılığı ile hiç alışveriş yaptınız mı? Hoşunuza gitti mi?**

**15. İleride tamamen internet aracılığı ile alışveriş yapabileceğimize inanıyormusunuz? Neden?**

**16. Karumu tarif etmek için aşağıdaki sıfatlardan hangilerini kullanırsınız?**

**(Lütfen sadece uygun bulduklarınızı işaretleyiniz.)**

- |  |  |
|--|--|
| * <input type="checkbox"/> Dinlendirici – Yorucu <input type="checkbox"/>      | * <input type="checkbox"/> Yakın – Uzak <input type="checkbox"/>             |
| * <input type="checkbox"/> Çağdaş – Klasik <input type="checkbox"/>            | <input type="checkbox"/> Açık (Okunaklı) – Gizemli <input type="checkbox"/>  |
| * <input type="checkbox"/> Parlak – Soluk <input type="checkbox"/>             | * <input type="checkbox"/> Derlitoplu – Dağınık <input type="checkbox"/>     |
| <input type="checkbox"/> Çeşitli – Sınırlı (Mal) <input type="checkbox"/>      | <input type="checkbox"/> Orantılı – Orantısız <input type="checkbox"/>       |
| <input type="checkbox"/> Yeterli Işık – Yetersiz Işık <input type="checkbox"/> | * <input type="checkbox"/> Temiz Hava - Havasız <input type="checkbox"/>     |
| * <input type="checkbox"/> Moda – Demode <input type="checkbox"/>              | * <input type="checkbox"/> Düzenli – Düzensiz <input type="checkbox"/>       |
| * <input type="checkbox"/> Ucuz – Pahalı <input type="checkbox"/>              | * <input type="checkbox"/> Ferah – Basık <input type="checkbox"/>            |
| <input type="checkbox"/> Uyumlu (Tutarlı) – Karmaşık                           | * <input type="checkbox"/> Aydınlık –Karanlık <input type="checkbox"/>       |
| * <input type="checkbox"/> Temiz – Pis <input type="checkbox"/>                | * <input type="checkbox"/> Sıcak – Soğuk (Mekan) <input type="checkbox"/>    |
| * <input type="checkbox"/> Güzel – Çirkin <input type="checkbox"/>             | * <input type="checkbox"/> Rahat – Rahatsız <input type="checkbox"/>         |
| <input type="checkbox"/> Kolay ulaşım – Zor ulaşım <input type="checkbox"/>    | * <input type="checkbox"/> Neşeli – Kasvetli <input type="checkbox"/>        |
| * <input type="checkbox"/> Canlı Renkli – Soluk Renkli                         | <input type="checkbox"/> Çeşitli – Sınırlı (Dükkan) <input type="checkbox"/> |
| * <input type="checkbox"/> Kalabalık – Tenha <input type="checkbox"/>          | <input type="checkbox"/> Dengeli – Dengesiz <input type="checkbox"/>         |
| * <input type="checkbox"/> Büyük – Küçük <input type="checkbox"/>              | * <input type="checkbox"/> Güvenli – Güvensiz <input type="checkbox"/>       |
| * <input type="checkbox"/> Güzel Koku – Kötü Koku <input type="checkbox"/>     | * <input type="checkbox"/> Etkileyici – Sıradan <input type="checkbox"/>     |
| * <input type="checkbox"/> Çekici – İtici <input type="checkbox"/>             | * <input type="checkbox"/> Canlı – Durgun <input type="checkbox"/>           |
| * <input type="checkbox"/> Sıcak – Soğuk (Isı) <input type="checkbox"/>        | * <input type="checkbox"/> Zevkli – Zevksiz <input type="checkbox"/>         |
| * <input type="checkbox"/> Kaliteli – Kalitesiz (Mekan)                        | <input type="checkbox"/> Ölçekli – Ölçeksiz <input type="checkbox"/>         |

\* Represents the selected adjectives as  
environmental descriptors (see page 94).

**SORU FORMU (İÇ MİMARİ ÖĞRENCİLERİ)**

NO:  
TARİH:

**1. Cinsiyet: (1)**

**2. Yaş:**

**3. Sınıf: (2)**

☐ K (1)

☐ E (2)

**4. Hangi semtte oturuyorsunuz?**

**LÜTFEN AŞAĞIDAKİ SORULARI KARUMA EN SON GİDİŞİNİZE GÖRE  
CEVAPLAYINIZ.**

**5. Karumda yalnız mıydınız? (3)**

☐ Evet (1)

☐ Hayır ..... (Lütfen kaç kişi olduğunuzu belirtiniz) (2)

**6. Karumda yaklaşık ne kadar vakit geçirdiniz? (4)**

☐ 1 saatten az (1)

☐ 2-3 saat arası (3)

☐ 1-2 saat arası (2)

☐ 3 saatten fazla (4)

**7. Karumu ne sıklıkta ziyaret ediyorsunuz? (5)**

☐ İlk kez (1)

☐ Haftada 3 den fazla (4)

☐ Ayda 1-3 defa (2)

☐ Hergün (5)

☐ Haftada 1-3 defa (3)

☐ Günde 1'den fazla (6)

**8. Karuma gitmekteki temel amacınız neydi?**

**9. Karumda hangi aktiviteleri gerçekleştirdiniz?**

- (1) Alışveriş yapmayı planlamadan dolaşım. ☐
- (2) Önceden planladığım bir alışveriş yaptım. ☐
- (3) Önceden planlamadığım bir alışveriş yaptım. ☐
- (4) Vitrinlere baktım. ☐
- (5) Yemek yedim ve / veya birşeyler içtim. ☐
- (6) Yiyecek birşeyler aldım. ☐
- (7) Yeni neler var diye bakındım. ☐
- (8) Ailemle / arkadaşlarımla buluştum. ☐
- (9) Arkadaşlarımla / tanıdıklarımla karşılaştım ve / veya vakit geçirdim. ☐
- (10) Alışveriş yapanlarla sohbet ettim. ☐
- (11) Bankaya gittim. ☐
- (12) Kuaföre / berbere gittim. ☐
- (13) Terziye gittim. ☐
- (14) WC'ye gittim.



**10. Bu aktiviteleri gerçekleştirmek için neden Karumu tercih ettiniz?**

**11. Karumun mekanı / ortamı hakkında ne düşünüyorsunuz?**

**12. Burada daha fazla yada iyi vakit geçirmek için nasıl bir mekan / ortam olmasını isterdiniz?**

**13. Buradan başka hangi alışveriş merkezlerine gidiyorsunuz? Karumla karşılaştırır mısınız?**

**14. İnternet aracılığı ile hiç alışveriş yaptınız mı? Hoşunuza gitti mi?**

**15. İlerde tamamen internet aracılığı ile alışveriş yapabileceğinize inanıyor musunuz? Neden?**

**16. Karumu tarif etmek için aşağıdaki sıfatlardan hangilerini kullanırsınız?**

**(Lütfen sadece uygun bulduklarınızı işaretleyiniz.)**

- |   |   |
|---|---|
| (1) <input type="checkbox"/> Dinlendirici – Yorucu <input type="checkbox"/>         | (19) <input type="checkbox"/> Yakın – Uzak <input type="checkbox"/>               |
| (2) <input type="checkbox"/> Çağdaş – Klasik <input type="checkbox"/>               | (20) <input type="checkbox"/> Açık (Okunaklı) – Gizemli <input type="checkbox"/>  |
| (3) <input type="checkbox"/> Parlak – Soluk <input type="checkbox"/>                | (21) <input type="checkbox"/> Derlitoplu – Dağınık <input type="checkbox"/>       |
| (4) <input type="checkbox"/> Çeşitli – Sınırlı (Mal) <input type="checkbox"/>       | (22) <input type="checkbox"/> Orantılı – Orantısız <input type="checkbox"/>       |
| (5) <input type="checkbox"/> Yeterli Işık – Yetersiz Işık <input type="checkbox"/>  | (23) <input type="checkbox"/> Temiz Hava - Havasız <input type="checkbox"/>       |
| (6) <input type="checkbox"/> Moda – Demode <input type="checkbox"/>                 | (24) <input type="checkbox"/> Düzenli – Düzensiz <input type="checkbox"/>         |
| (7) <input type="checkbox"/> Ucuz – Pahalı <input type="checkbox"/>                 | (25) <input type="checkbox"/> Ferah – Basık <input type="checkbox"/>              |
| (8) <input type="checkbox"/> Uyumlu (Tutarlı) – Karmaşık <input type="checkbox"/>   | (26) <input type="checkbox"/> Aydınlık –Karanlık <input type="checkbox"/>         |
| (9) <input type="checkbox"/> Temiz – Pis <input type="checkbox"/>                   | (27) <input type="checkbox"/> Sıcak – Soğuk (Mekan) <input type="checkbox"/>      |
| (10) <input type="checkbox"/> Güzel – Çirkin <input type="checkbox"/>               | (28) <input type="checkbox"/> Rahat – Rahatsız <input type="checkbox"/>           |
| (11) <input type="checkbox"/> Kolay ulaşım – Zor ulaşım <input type="checkbox"/>    | (29) <input type="checkbox"/> Neşeli – Kasvetli <input type="checkbox"/>          |
| (12) <input type="checkbox"/> Canlı Renkli – Soluk Renkli <input type="checkbox"/>  | (30) <input type="checkbox"/> Çeşitli – Sınırlı (Dükkan) <input type="checkbox"/> |
| (13) <input type="checkbox"/> Kalabalık – Tenha <input type="checkbox"/>            | (31) <input type="checkbox"/> Dengeli – Dengesiz <input type="checkbox"/>         |
| (14) <input type="checkbox"/> Büyük – Küçük <input type="checkbox"/>                | (32) <input type="checkbox"/> Güvenli – Güvensiz <input type="checkbox"/>         |
| (15) <input type="checkbox"/> Güzel Koku – Kötü Koku <input type="checkbox"/>       | (33) <input type="checkbox"/> Etkileyici – Sıradan <input type="checkbox"/>       |
| (16) <input type="checkbox"/> Çekici – İtici <input type="checkbox"/>               | (34) <input type="checkbox"/> Canlı – Durgun <input type="checkbox"/>             |
| (17) <input type="checkbox"/> Sıcak – Soğuk (Isı) <input type="checkbox"/>          | (35) <input type="checkbox"/> Zevkli – Zevksiz <input type="checkbox"/>           |
| (18) <input type="checkbox"/> Kaliteli – Kalitesiz (Mekan) <input type="checkbox"/> | (36) <input type="checkbox"/> Ölçekli – Ölçeksiz <input type="checkbox"/>         |

## QUESTIONNAIRE

NO:  
DATE:

**1. Sex:**

- ☐ Female  
☐ Male

**2. Age:**

- ☐ 18-30  
☐ 30-60

**3. Level of education:**

- ☐ Primary School Graduate  
☐ High School Graduate  
☐ University Graduate ..... (Please specify your profession)

**4. The district you live:**

**5. Were you alone in your mall visit?**

- ☐ Yes  
☐ No ..... (Please specify the number of your companions)

**6. Approximate time spent in the mall:**

- |  |  |
|--|--|
| <input type="checkbox"/> Less than 1 hour  | <input type="checkbox"/> Between 2-3 hours |
| <input type="checkbox"/> Between 1-2 hours | <input type="checkbox"/> More than 3 hours |

**7. Frequency of mall visits:**

- |  |   |
|--|---|
| <input type="checkbox"/> First time        | <input type="checkbox"/> More than 3 times a week |
| <input type="checkbox"/> 1-3 times a month | <input type="checkbox"/> Everyday                 |
| <input type="checkbox"/> 1-3 times a week  | <input type="checkbox"/> Everyday more than once  |

**8. What was your main purpose to visit the shopping mall today?**

**9. Which of the below activities did you perform in the mall today?**

- A. Browsed in the mall without planning to buy ☐
- B. Shopped in the mall to buy something today ☐
- C. Made an unplanned purchase ☐
- D. Looked at mall exhibits or shop windows ☐
- E. Eat or drink something ☐
- F. Bought a snack ☐
- G. Explored to see what's new ☐
- H. Meet with friends or family members ☐
- I. Socialized with friends or family members ☐
- J. Talked with other shoppers ☐
- K. Visited the bank ☐
- L. Had a haircut or style in the hairdresser ☐
- M. Visited the tailor ☐
- N. Visited WC ☐

**10. Why did you choose Karum to perform these activities?**

**11. Can you evaluate the spatial features and atmosphere of Karum?**

**12. What would you prefer to have spatially / within the atmosphere to spend more time or more pleasurable time in Karum?**

**13. Which shopping malls, other than Karum, do you use? Why?**

**14. Have you experienced shopping through the Internet? Did you like the experience?**

**15. Would you prefer to shop just through the Internet in the future? Why?**

**16. Which of the below adjectives would you use to define Karum?**

**(Please just identify the ones you find appropriate)**

- |  |   |
|--|---|
| <input type="checkbox"/> Relaxing – Tiring <input type="checkbox"/>                  | <input type="checkbox"/> Near – Far <input type="checkbox"/>                        |
| <input type="checkbox"/> Contemporary – Classical <input type="checkbox"/>           | <input type="checkbox"/> Legible – Mysterious <input type="checkbox"/>              |
| <input type="checkbox"/> Bright – Dull <input type="checkbox"/>                      | <input type="checkbox"/> Tidy – Untidy <input type="checkbox"/>                     |
| <input type="checkbox"/> Variety – Limited Variety (Brands) <input type="checkbox"/> | <input type="checkbox"/> In Proportion – Out of Proportion <input type="checkbox"/> |
| <input type="checkbox"/> Adequate – Inadequate Lighting <input type="checkbox"/>     | <input type="checkbox"/> Good – Poor Ventilation <input type="checkbox"/>           |
| <input type="checkbox"/> Fashionable – Unfashionable <input type="checkbox"/>        | <input type="checkbox"/> Orderly – Chaotic <input type="checkbox"/>                 |
| <input type="checkbox"/> Cheap – Expensive <input type="checkbox"/>                  | <input type="checkbox"/> Spacious – Tight <input type="checkbox"/>                  |
| <input type="checkbox"/> Coherent – Complex <input type="checkbox"/>                 | <input type="checkbox"/> Luminous – Dark <input type="checkbox"/>                   |
| <input type="checkbox"/> Clean – Dirty <input type="checkbox"/>                      | <input type="checkbox"/> Friendly – Unfriendly <input type="checkbox"/>             |
| <input type="checkbox"/> Beautiful – Ugly <input type="checkbox"/>                   | <input type="checkbox"/> Comfortable – Uncomfortable <input type="checkbox"/>       |
| <input type="checkbox"/> Easy access – Difficult access <input type="checkbox"/>     | <input type="checkbox"/> Cheerful – Gloomy <input type="checkbox"/>                 |
| <input type="checkbox"/> Bright Colors – Muted Colors <input type="checkbox"/>       | <input type="checkbox"/> Variety – Limited Variety (Shops) <input type="checkbox"/> |
| <input type="checkbox"/> Crowded – Uncrowded <input type="checkbox"/>                | <input type="checkbox"/> Balanced – Unbalanced <input type="checkbox"/>             |
| <input type="checkbox"/> Large – Small <input type="checkbox"/>                      | <input type="checkbox"/> Secure – Insecure <input type="checkbox"/>                 |
| <input type="checkbox"/> Fresh Odor – Stale Odor <input type="checkbox"/>            | <input type="checkbox"/> Impressive – Unimpressive <input type="checkbox"/>         |
| <input type="checkbox"/> Appealing – Unappealing <input type="checkbox"/>            | <input type="checkbox"/> Lively – Dull <input type="checkbox"/>                     |
| <input type="checkbox"/> Hot – Cold (Temperature) <input type="checkbox"/>           | <input type="checkbox"/> Enjoyable – Boring <input type="checkbox"/>                |
| <input type="checkbox"/> Good – Poor Quality (Space) <input type="checkbox"/>        | <input type="checkbox"/> In Scale – Out of Scale <input type="checkbox"/>           |

## APPENDIX B

**Table 7.1** Purpose of mall visit, performed activities through mall visit, the reason of mall choice, concern, and internet use among public users.

PUBLIC USERS												PERFORMED ACTIVITIES												CONCERN			INTERNET	
F	1	2	3	4	5	6	AIM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	PER	SOC	SPA	NOW	FUTURE		
1	1	1	3	2	2	3	2	1	1	1	1	1	1	1								2*		2	1	2,3		
2	1	2	2	1	2	3	1	1	1		1	1	1									1*,2		2	1	1		
3	1	2	3	1	1	3	1	1	1		1	1	1	1								2*		2	1	5		
4	1	2	3	2	3	3	2	1	1	1	1	1	1			1					1	2,1		2*,1	1	1		
5	1	2	3	1	2	3	1	1	1		1											2*,1*		2,1	1	1		
6	1	2	3	2	2	3	1	1	1			1										1*,4*		2,1	1	1,2		
7	1	1	2	2	1	2	2	1	1		1	1	1	1		1						1*		1*,2*	1	1		
8	1	1	3	1	2	2	1	1	1		1	1		1								1*,2*		1,2	2	1		
9	1	2	2	1	1	3	2	1														2		1,2*	1	1		
10	1	2	3	2	2	3	1		1		1			1								2*		2*	1	1		
11	1	2	3	2	2	3	3	1	1			1		1								2,1		2*,1	1	1		
12	1	2	2	1	1	2	3	1			1	1												2*	1	1		
13	1	1	2	2	1	2	1	1			1	1									1		2		2*	1		
14	1	2	2	1	4	3	1		1			1	1									2*	1*	2	1	4		
15	1	1	3	1	2	2	2				1	1	1	1								1		2*	2	1		
16	1	1	3	2	4	5	2				1	1										2*		2	1	3		
17	1	1	3	1	2	4	2				1	1	1	1								1,2		2*,1	1	1		
18	1	1	3	2	2	3	2	1			1	1	1	1		1						2*	2*	2*,1	1	2		
19	1	1	3	2	2	3	2		1			1										1*		2*,1	1	1		
20	1	1	2	2	4	3	2				1				1									2*	1	1		
21	1	1	2	2	2	3	2	1			1	1	1									2*,3		2	1	1,2		
22	1	1	3	2	2	3	2	1			1	1										2		2*,1	1	5		
23	1	2	3	2	3	2	1		1	1	1	1		1	1		1					2*		2*,1	1	2		
24	1	2	2	2	1	2	1		1		1	1										1,2*		2	1	1		
25	1	1	3	1	1	3	3		1			1										1*,2*,4*		2	1	1		
26	1	2	3	1	1	2	2	1			1											2*		2	1	1,2		
27	1	2	3	1	2	2	2				1			1								2*		1	1	2		
28	1	2	3	1	1	2	1		1		1	1	1	1								1*,2*		2*,1	1	2		
29	1	2	3	1	1	2	1		1													1*,2*		2	1	2		
30	1	2	2	2	1	4	2	1														1*,2*			1	2		
31	1	2	3	1	2	2	2				1			1								1*,2*			1	2		
32	1	2	3	1	2	2	3		1		1											2*		2*,1	1	2		
33	1	2	3	1	2	3	1		1	1	1		1	1								4		2*,1	1	2		
34	1	1	3	2	1	2	1		1		1	1		1		1						2*		2*,1	1	1,2		
35	1	1	3	2	1	3	3				1	1		1		1						2*		2	1	1,3		
36	1	1	2	2	1	2	1				1	1		1	1		1					2*		1,2	2	1		
37	1	1	3	1	2	2	1	1														2*		2	2	2,1		
38	1	1	3	2	4	2	1		1		1											2*		1*,2*	2	1		
39	1	1	3	2	1	2	1		1		1	1	1	1		1					1	2*		2*	1	1,2		
40	1	1	3	2	2	2	1		1	1	1	1		1		1						2*		2*	2	1,4		
SUM 1	40	20	0	18	16	0	19	13	20	11	30	20	9	22	3	10	2	1	0	0	4				34	28		
SUM 2	0	20	11	22	18	20	16																		6	9		
SUM 3	0	0	29	0	2	17	5																		3	2		
SUM 4	0	0	0	0	4	2																				2		
SUM 5																										3		
SUM 6																												

Table 7.1 (continued)

PUBLIC USERS							PERFORMED ACTIVITIES														CONCERN			INTERNET			
M	1	2	3	4	5	6	AIM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	PER	SOC	SPA	NOW	FUTURE	
41	2	2	3	2	2	2	2			1	1	1		1								1*		2*	1	1	1,2
42	2	2	3	2	2	3	1	1			1			1								3	1*	2,1	1	2	
43	2	2	3	2	2	2	3		1	1	1											1*,2*		2	1	1	1,6
44	2	2	3	1	1	2	1	1			1			1								1*		2,1	1	1	1
45	2	2	3	1	1	2	1				1			1		1						2*		2,1	1	2	
46	2	2	2	1	1	3	1		1													1*,2*			1	1	1
47	2	2	2	1	2	2	2			1		1		1										2*	1	3	
48	2	2	3	1	1	2	1	1			1			1								2*		2,1	1	2	
49	2	2	3	2	2	4	3		1			1				1						2*		2*,1*	2	1	1
50	2	2	3	2	2	2	2	1			1	1											2*	2*	1	1	1,4
51	2	2	3	2	1	2	2				1	1			1							1	2	2*,1	1	1	1
52	2	2	2	2	3	2	2	1			1	1		1									2*	2	2	2	
53	2	1	3	2	2	3	2		1			1		1	1							1*	2*	2*	1	2	
54	2	1	3	2	2	3	2	1			1	1			1							2		2*	1	1	2
55	2	1	3	2	1	3	2	1				1											1*	2	2	2	
56	2	1	3	2	4	5	2					1						1	1			2*			1	2	
57	2	2	3	2	1	3	3		1			1			1							1*			1	1	1,2
58	2	1	2	2	1	2	1		1			1		1			1					2*		2	1	2	
59	2	1	3	2	1	5	2	1			1	1	1	1										2*	1	1	1
60	2	2	2	1	1	5	2					1												2*	1	2	
61	2	1	2	2	1	2	1			1	1				1				1			1*		2	2	2	
62	2	1	2	1	2	5	2							1	1			1				2		2*	1	2	
63	2	1	2	2	4	5	3					1				1							2	1,2*	1	1	1,2
64	2	1	2	1	2	4	3				1	1		1				1			1	1*		2	1	2	
65	2	1	3	2	4	3	3	1			1	1		1				1			1	3		2*	1	2	
66	2	1	3	2	1	5	2						1		1									2*	2	2	
67	2	1	3	2	4	3	1	1			1											3		1*,2	1	1	1,4
68	2	1	2	2	2	3	2					1		1	1								2*	2*	1	1	1
69	2	1	3	2	2	3	2	1			1	1	1	1							1	2		1*	1	1	1
70	2	2	3	1	1	5	2					1	1	1								1*		2,1	2	2	
71	2	2	3	2	2	5	2						1		1							3		2*	1	1	1,4
72	2	2	3	1	1	3	1				1	1		1								2*		2	1	1	1
73	2	1	3	1	1	2	1	1			1			1	1	1						2*,1		2,1	1	1	1
74	2	1	2	1	1	3	2	1																2*	1	1	1,6
75	2	2	2	2	2	3	2				1	1		1	1							1*	2*	2	1	1	1
76	2	1	2	1	1	2	1		1	1	1											1*	2		2	1	1,2
77	2	2	3	1	1	2	2	1			1													2*,1	1	1	1,2
78	2	1	2	2	2	3	3		1	1		1		1								1*	2	2*,1	1	2	
79	2	2	3	2	2	3	1		1	1		1										1*			1	1	6
80	2	1	2	2	3	3	2															3		2*	2	1	2
SUM 1	0	20	0	14	18	0	12	14	9	7	21	24	5	20	11	4	1	4	2	0	3				32	23	20
SUM 2	40	20	15	26	16	14	21																		8	16	6
SUM 3	0	0	25	0	2	16	7																			1	0
SUM 4	0	0	0	0	4	2																					3
SUM 5																											0
SUM 6																											3



**Table 7.2** Purpose of mall visit, performed activities through mall visit, the reason of mall choice, concern, and internet use among interior architecture students.

INT. ARCH. STUDENTS						PERFORMED ACTIVITIES														CONCERN			INTERNET			
F	1	2	3	4	5	AIM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	PER	SOC	SPA	NOW	FUTURE	
1	1	1	2	2	2	1				1											1		1,2	1	1,2	
2	1	1	2	3	2	1		1		1					1							1*	1	2		
3	1	1	2	2	2	2	2	1	1	1	1	1		1			1						1	1	1,4	
4	1	1	2	2	2	3	1	1	1	1	1	1	1	1	1							2*,1	1	3		
5	1	1	2	1	2	2	2	1		1											2*		1*	1	1,2	
6	1	1	2	2	2	2	1														2	2,1	1	2		
7	1	1	1	1	3	1	1		1	1			1								1*	1*	1	2		
8	1	1	2	1	2	1	1		1	1											1*	2	1	1	2	
9	1	1	2	2	2	1	1	1	1	1	1	1	1				1				*2	1	1	2		
10	1	2	2	4	2	1	1	1	1	1	1	1	1		1						1*,2*	1	2,1	1	2	
11	1	2	2	2	2	3	1	1	1	1	1	1	1								1*,2*		2,1	1	2	
12	1	2	2	2	3	1	1	1	1	1	1	1		1			1				2*	1	1	1	1	
13	1	2	2	2	2	1	1	1	1	1	1				1						2*,1*		1	1	3	
14	1	2	2	2	3	1	1	1	1	1	1	1									1	1	1	1	1	
15	1	2	2	2	2	3	1	1	1	1	1	1	1	1			1				1*	1,2	2	1	1	
16	1	2	2	2	3	2	1		1	1	1														1	
17	1	2	2	2	2	3	1		1				1												1	
18	1	2	2	2	3	3	1		1	1	1	1	1									2,1	1	2		
19	1	2	2	3	2	1	1	1	1	1	1	1	1	1	1			1			2*		1	1	1	
20	1	2	2	2	3	1		1	1	1				1				1			4*	2,1	1	2		
21	1	3	2	2	2	2	2	1	1	1											2*	2	1	2		
22	1	3	2	3	2	3	1	1	1	1	1		1		1						2*	1*	1,2	1	1	
23	1	3	2	3	2	3	1	1	1	1	1										2*	1*	1	1	1,2	
24	1	3	2	3	2	3	1	1	1	1	1	1	1	1	1			1			2*	2,1	1	1	1	
25	1	3	2	4	3	1	1	1	1	1											1*	1	1	1	4	
26	1	3	2	1	2	1	1	1	1								1				1*	2	1	1	1	
27	1	3	1	3	3	1	1	1	1	1	1							1			1*	1,2	1	1	1	
28	1	3	2	1	2	1	1	1	1	1											1*	1	1	2		
29	1	3	2	3	2	1	1	1	1	1	1		1								2,1	2,1	2	1	2	
30	1	3	2	3	2	1	1	1	1	1	1	1	1	1							1*	1,2	1	2		
31	1	4	2	3	2	1	1	1	1	1	1	1	1					1			2*	2	1	1	4	
32	1	4	2	1	2	1	1	1	1	1	1				1		1					1*	1	1	1,2	
33	1	4	1	1	2	1	1	1	1	1															2	
34	1	4	1	1	1	5	2	1			1							1			4*	2*,1	1	2		
35	1	4	2	1	2	3	1	1	1	1	1		1		1						2*	1,2	1	1	1	
36	1	4	2	1	3	1	1	1	1	1	1		1								2*	2,1	1	1	1	
37	1	4	2	1	2	2	1	1	1	1	1	1	1								1*,2	1	1	1	1	
38	1	4	2	3	2	1	1	1		1												2*,1	1	1	6	
39	1	4	2	1	2	1	1	1		1					1						2*	2	1*,2	1	1,2	
40	1	4	2	1	2	1		1					1								2*	1*	2*	1	2	
SUM 1	40	10	4	14	0	26	12	26	14	33	17	4	19	8	10	1	6	0	1	7				39	24	19
SUM 2	0	10	36	14	29	6																		1	14	7
SUM 3	0	10	0	10	10	8																			2	0
SUM 4	0	10	0	2	0	0																				3
SUM 5																										0
SUM 6																										1

Table 7.2 (continued)

INT. ARCH. STUDENTS						PERFORMED ACTIVITIES														CONCERN			INTERNET			
M	1	2	3	4	5	AIM	1	2	3	4	5	6	7	8	9	10	11	12	13	14	PER	SOC	SPA	NOW	FUTURE	
41	2	1	2	3	2	2				1	1									1	2*		1*,2	1	1	1,4
42	2	1	2	2	2	1				1	1	1	1		1						2*	2	1*,2	1	1	1
43	2	1	2	2	3	1		1	1	1			1		1						2*		1*,2*	1	2	
44	2	1	2	2	2	1		1	1	1	1		1								2*		1,2	1	2	
45	2	1	2	2	3	3	1	1	1	1	1				1					1	1*	2*	2	1	2	
46	2	1	2	2	3	1							1								1*		2,1	2	1	6
47	2	1	2	3	2	1		1		1	1			1	1				1	1	1*		2*,1	1	1	1
48	2	1	2	2	2	1		1		1	1				1						2		1,2	1	1	1,6
49	2	1	2	2	2	2	1	1		1			1	1	1					1		1*	2,1	1	2	
50	2	1	1	2	2	2				1			1					1			2*	4	1,2	1	1	1
51	2	2	1	3	2	2				1			1					1			3	4*	2	1	2	
52	2	2	1	1	2	1		1					1								2*	4*	1*,2	1	2	
53	2	2	2	2	2	2			1		1		1					1			2*		1*,2	1	1	6
54	2	2	1	1	3	1		1		1											2*			1	2	
55	2	2	2	1	2	2				1	1		1	1						1	1*	2	2,1	1	2	
56	2	2	1	2	2	3	1	1			1				1					1	1*		2,1	2	2	
57	2	2	2	1	2	2					1		1				1				1*			2	1	1
58	2	2	1	1	4	1		1		1			1								1*,2*	2	1,2	2	2	
59	2	2	2	2	2	3		1		1			1				1				1*		2	2	1	1
60	2	2	2	2	2	3		1	1	1		1	1		1				1	1	4*,2*	2	2*,1	1	1	1
61	2	3	2	2	2	1			1	1	1		1								2*		2,1	1	2	
62	2	3	2	2	3	1	1	1	1	1	1	1	1	1						1	1*,2*		2*	2	1	4
63	2	3	2	2	2	1		1			1				1						2*		2,1	2	2	
64	2	3	2	2	2	3	1		1	1	1		1								2*		1*,2	1	1	1,2
65	2	3	2	2	3	1	1		1	1	1				1						1*		1	1	1	1
66	2	3	1	2	3	2	1			1	1		1										2*	1	1	1,2
67	2	3	2	1	2	1	1	1	1	1	1										2*		1	1	1	1
68	2	3	1	1	2	1		1		1											2*		1	1	1	6
69	2	3	2	3	2	2	1			1	1			1	1							1*	1*,2	1	1	1,4
70	2	3	2	2	3	1		1		1											2*		2	1	2	
71	2	4	2	1	2	1	1			1			1								2*		1*,2	1	1	1,6
72	2	4	2	2	2	1		1		1			1								1*		1*	1	2	
73	2	4	2	2	2	3	1	1	1	1	1	1	1	1	1					1	2*			1	2	
74	2	4	2	3	3	2	1				1									1		2	2*	1	1	4
75	2	4	2	2	3	3			1	1	1				1					1	1*,2*		1,2	1	1	6
76	2	4	2	1	2	1		1			1										2*			1	2	
77	2	4	2	2	2	3	1			1	1		1							1	1*,2*		2	2	1	4
78	2	4	2	2	2	3			1	1	1							1				1*	1*,2	2	2	
79	2	4	2	2	2	2			1	1			1					1			1*		2	2	2	
80	2	4	2	2	2	1				1			1		1						2		1*,2*	1	1	1
SUM 1	0	10	8	9	0	20	13	20	15	32	24	4	24	6	14	0	2	4	2	14				30	22	15
SUM 2	40	10	32	26	29	11																		10	18	2
SUM 3	0	10	0	5	10	9																				0
SUM 4	0	10	0	0	1	0																				5
SUM 5																										0
SUM 6																										6

## **KEY TO THE TABLES 7.1 AND 7.2**

### **PUBLIC USERS:**

**(1) SEX:** (1) F, (2) M

**(2) AGE:** (1) 18-30, (2) 30-60

**(3) EDUCATION:** (1) Primary school graduate  
(2) High school graduate  
(3) University graduate

**(4) COMPANIONS:** (1) Alone, (2) With companions

**(5) TIME SPENT:** (1) Less than an hour  
(2) Between 1-2 hours  
(3) Between 2-3 hours  
(4) More than 3 hours

**(6) FREQUENCY OF MALL VISIT:** (1) First time  
(2) 1-3 times a month  
(3) 1-3 times a week  
(4) More than 3 times a week  
(5) Everyday  
(6) Everyday more than once

### **INTERIOR ARCHITECTURE STUDENTS:**

**(1) SEX:** (1) F, (2) M

**(2) GRADE:** (1), (2), (3), (4)

**(3) COMPANIONS:** (1) Alone, (2) With companions

**(4) TIME SPENT:** (1) Less than an hour  
(2) Between 1-2 hours  
(3) Between 2-3 hours  
(4) More than 3 hours

**(5) FREQUENCY OF MALL VISIT:** (1) First time  
(2) 1-3 times a month  
(3) 1-3 times a week  
(4) More than 3 times a week  
(5) Everyday  
(6) Everyday more than once

**AIM:** Purpose of Mall visit (1) Shopping  
(2) Leisure  
(3) Both shopping and leisure

**PERFORMED ACTIVITIES:** (1) Browsing  
(2) Planned purchase  
(3) Unplanned purchase  
(4) Window-shopping  
(5) Eating or drinking  
(6) Purchase of food  
(7) Exploration  
(8) Meeting with friends or family members  
(9) Socializing with friends or family members  
(10) Interaction with other shoppers  
(11) Visit to bank  
(12) Visit to hairdresser or barber  
(13) Visit to tailor  
(14) Visit to WC

**CONCERN:** Personal Concern: (1) Proximity  
(2) Variety and number of stores  
(3) Economy  
(4) Familiarity

Social Concern: (1) Social interaction  
(2) User group  
(3) Exploration  
(4) Safety

Environmental Concern: (1) Formal (Physical features)  
(2) Symbolic (Impressions of physical features)

\* Represents the reason of mall visit

**INTERNET:** Now: No (1)  
Yes (2)

Future: No (1)  
Yes (2)

If no in the future, the reasons are: (1) Exploration  
(2) Entertainment  
(3) Exercise  
(4) Social interaction  
(5) Lack of information  
(6) Lack of safety

## APPENDIX C

**Table 7.3** The adjective pairs among public users and interior architecture students

		ADJECTIVE PAIRS																																			
		1		2		3		4		5		6		7		8		9		10		11		12		13		14		15		16		17		18	
P	F	7	2	9	1	6	1	8	0	7	0	6	1	1	6	3	0	11	0	5	0	7	1	3	1	4	0	5	3	3	0	3	0	5	1	9	0
	M	10	1	11	1	4	1	5	3	6	1	5	0	1	7	2	2	13	0	8	1	6	1	5	1	6	2	4	4	4	0	5	0	7	0	8	1
	T	17	3	20	2	10	2	13	3	13	1	11	1	2	13	5	2	24	0	13	1	13	2	8	2	10	2	9	7	7	0	8	0	12	1	17	-
I.A.	F	1	8	8	3	7	5	8	3	7	2	6	1	1	6	4	10	10	0	3	1	11	3	2	3	12	0	6	3	1	2	3	1	8	1	9	0
	M	3	6	8	1	5	2	9	3	10	3	5	2	1	8	1	3	12	1	6	0	10	3	1	4	13	0	8	3	1	1	3	1	5	1	7	1
	T	4	14	16	4	12	7	17	6	17	5	11	3	2	14	5	13	22	1	9	1	21	6	3	7	25	0	14	6	2	3	6	2	13	2	16	-

		19		20		21		22		23		24		25		26		27		28		29		30		31		32		33		34		35		36	
P	F	11	1	0	0	16	1	1	0	4	2	11	1	16	0	16	0	6	0	7	0	6	0	12	0	2	0	4	2	2	2	6	1	10	0	2	0
	M	13	2	7	0	16	0	4	2	10	3	14	0	20	0	12	0	7	1	10	0	8	3	10	5	3	3	10	1	7	1	13	2	11	3	6	1
	T	24	3	7	0	32	1	5	2	14	5	25	1	36	0	28	0	13	1	17	0	14	3	22	5	5	3	14	3	9	3	19	3	21	3	8	1
I.A.	F	12	3	9	2	8	4	3	3	2	9	5	4	21	0	17	1	7	4	3	2	11	4	12	6	3	0	12	1	4	11	8	2	6	1	7	2
	M	11	5	13	0	12	4	11	3	6	7	13	2	20	1	17	1	6	2	10	2	8	2	16	6	5	2	13	3	3	8	11	3	6	4	10	3
	T	23	8	22	2	20	8	14	6	8	16	18	6	41	1	34	2	13	6	13	4	19	6	28	12	8	2	25	4	7	19	19	5	12	5	17	7

\*The numbers through 1 to 36 represents the 36 adjective pairs in their order in the questionnaire. The first box stands for the first adjective in the pair, while the second represent the opposite one.

## APPENDIX D

	Observed (fi)	Theoretical (Fi)	fi - Fi	(fi - Fi) <sup>2</sup> / Fi
Shopping-Shopping	5	2,4	-2,6	2,82
Shopping-Leisure	15	22,13	7,13	2,30
Shopping-S+L	57	52,45	-4,55	0,39
Leisure-Shopping	0	1,68	1,68	1,68
Leisure-Leisure	27	15,52	-11,48	8,49
Leisure-S+L	27	36,78	9,78	2,60
S+L-Shopping	0	0,9	0,9	0,90
S+L-Leisure	4	8,33	4,33	2,25
S+L-S+L	25	19,78	-5,22	1,38
			<b>X<sup>2</sup> =</b>	<b>22,81</b>

Table 7.4 The statistical analysis for the first hypothesis.

	Observed (fi)	Theoretical (Fi)	fi - Fi	(fi - Fi) <sup>2</sup> / Fi
Proximity – Shopping	13	9,772	3,228	1,07
Variety & No – Shopping	21	13,29	7,71	4,47
User Group – Shopping	1	3,127	-2,127	1,45
Space – Shopping	8	16,809	-8,809	4,62
Proximity – Leisure	7	11,136	-4,136	1,54
Variety & No – Leisure	9	15,145	-6,145	2,49
User Group – Leisure	6	3,536	2,464	1,72
Space – Leisure	27	19,154	7,846	3,21
Proximity - S+L	5	4,09	0,91	0,20
Variety & No – S+L	4	5,563	-1,563	0,44
User Group - S+L	1	1,309	-0,309	0,07
Space - S+L	8	7,036	0,964	0,13
			<b>X<sup>2</sup> =</b>	<b>21,41</b>

Table 7.5 The statistical analysis for the second hypothesis.

	Observed (fi)	Theoretical (Fi)	fi - Fi	(fi - Fi) <sup>2</sup> / Fi
Formal-Public	14	18,17	4,17	0,96
Symbolic-Public	40	35,83	-4,17	0,49
Formal-Int Arch	22	17,83	-4,17	0,98
Symbolic-Int Arch	31	35,17	4,17	0,49
			<b>X<sup>2</sup> =</b>	<b>2,92</b>

Table 7.6 The statistical analysis for the third hypothesis.

## APPENDIX E

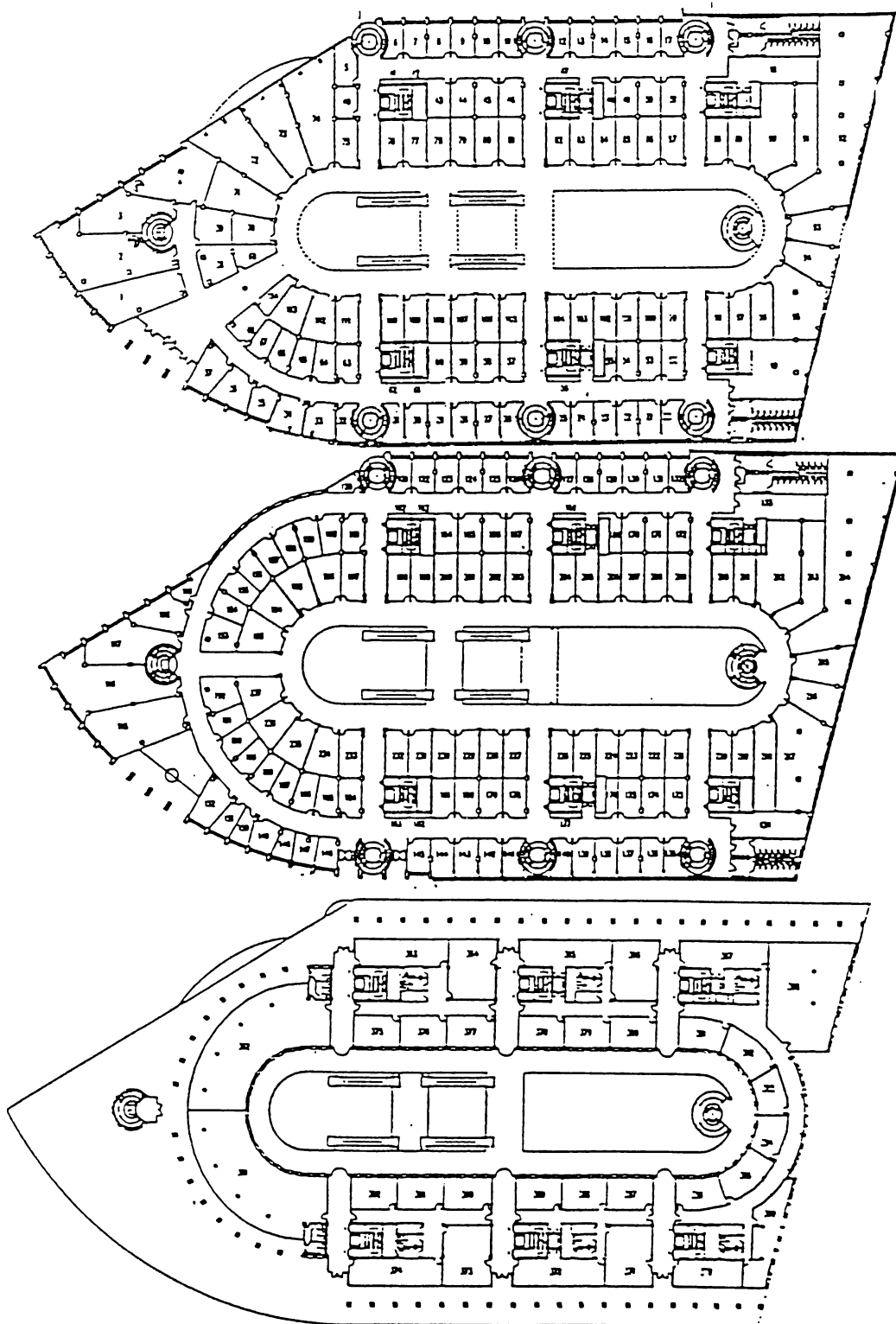


Figure 7.1 The floor plans of Karum.